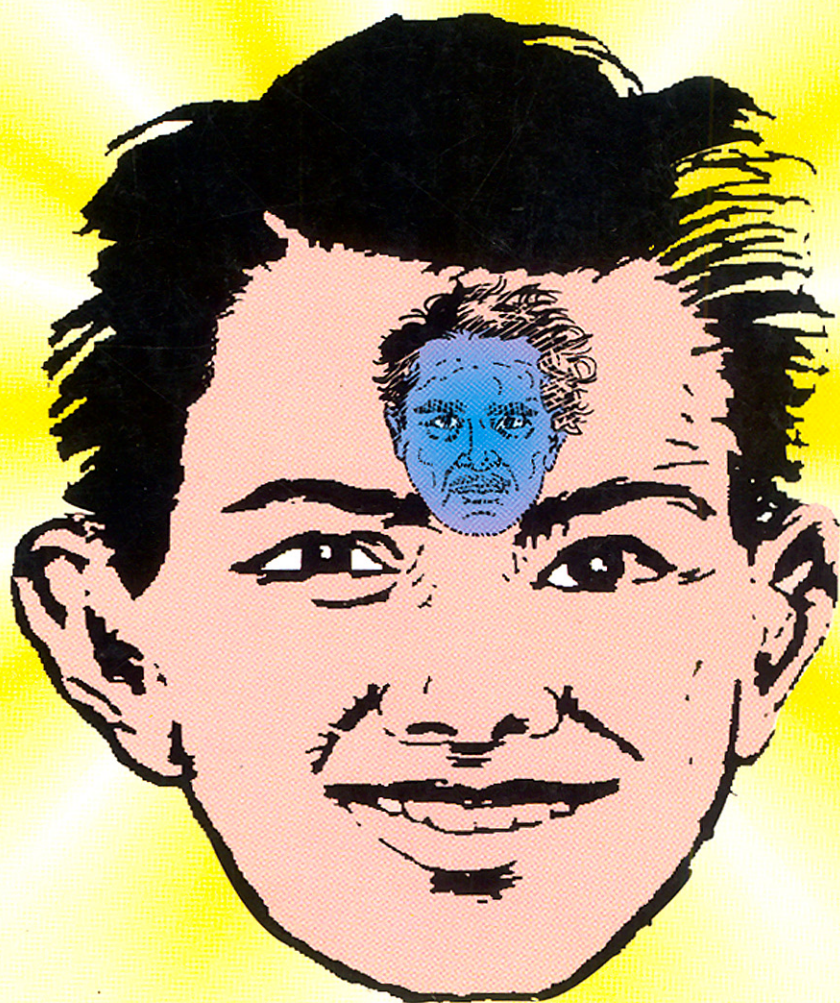


STRESS

UNDERSTANDING & MANAGEMENT

A WAY TO TOTAL WELLBEING

2nd Edition



Shriniwas J. Kashalikar

STRESS
UNDERSTANDING AND MANAGEMENT
A WAY TO TOTAL WELLBEING
SECOND EDITION

STRESS

UNDERSTANDING AND MANAGEMENT

A WAY TO TOTAL WELLBEING

SECOND EDITION

BY
DR. SHRINIWAS JANARDAN KASHALIKAR
M.B.B.S.,M.D.,F.I.C.G.,F.F.F.B.M.S.(USA), D.Sc.(OIUCM)



BHALANI PUBLISHING HOUSE
MUMBAI, INDIA

© 2001 Bhalani Publishing House, Mumbai, INDIA

FIRST EDITION 2000

SECOND EDITION 2005

All rights reserved

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the copyright owner.

ISBN 81 85578 75 3

PRINTED IN INDIA

Published by:

Bhalani Publishing House,

11, Mavawala Building,

Opp. K.E.M. Hospital,

Parel, Mumbai-400 012.

INDIA

E-mail : bhalani@vsnl.com

Website : www.bhalani.com

Typeset, Printed & Bound by :

Ashish Arts, Mumbai

ABOUT THE BOOK

This book is the culmination of the author's "expedition" stretching over thirty years. This expedition has been full of intellectual, emotional, instinctual, physical, economic, social and a variety of other "adventures". These adventures have been in the search of "that something", which can simultaneously and progressively fulfill the humane intellect, emotions, passions and physical needs of an individual as well as the society. The readers will discover that the outcome of this expedition is nothing else but understanding the STRESS (which is inseparable from life) thoroughly and accomplishing TOTAL STRESS MANAGEMENT (TSM) i.e. TOTAL WELL BEING.

FOR WHOM IS THIS BOOK?

The book is for everyone, who can read it, but especially for those who feel stressed and also for those who are in healing/ counselling profession.

HOW TO READ THIS BOOK?

- 1) Read this book step by step while simultaneously participating in a course on TSM and while simultaneously going through the other course material.
- 2) Consult the author, if and when there is some confusion or uncertainty about the interpretation of the contents. Fearless and frank discussions and arguments will benefit you as well as the author and others.
- 3) Do not try to memorize the contents. Just make sure that you are keen, interested, understand, appreciate and get involved in all the aspects of the contents.
- 4) You should neither believe, nor disbelieve. Accept the contents provisionally and verify by tallying them with your own day to day experiences.

UTILITY OF THE BOOK

Using the contents of this book and the course material mentioned therein, I have conducted several stress management programs. Participants have been benefited in several ways, notable amongst which are reduction in blood glucose and reduction in blood pressure. The results of the scientific projects are going to be published shortly in various scientific journals. But apart from such benefits, which I call “byproducts”, the true potential of this book is immense and I am sure that you will experience it in the course of time, in several ways.

It would prove maximally useful for those who would simultaneously participate in the course of Total Stress Management.

FEEDBACK ?

Yes. Of course ! It is extremely valuable. Please send your suggestions as well as point out mistakes, if any, so that the next edition can be more useful for everyone of us.

Thank you very much and wish you all the best !

CONTENTS

1. Introduction

- What is the meaning of stress ?
- What is internal environment of the body ?
- What is the importance of internal environment ?
- What are the characteristics of this internal environment?
- What are the causes of stress ?
- Are the stressors i.e. causes of stress always dangerous?
- When do the stressors i.e. causes of stress become dangerous ?
- Can stress be compared to traffic jam ?
- How many people suffer from stress ?
- Why don't we notice stress ?
- Why is the word stress "Management" used instead of "Eradication" or "Cure" of stress ?

2. Introduction to Total Stress Management (TSM)

- What is Total Stress Management (TSM) course ?
- What is the Objective of TSM course ?
- What exactly does this mean ?
- Does TSM require lot of memorizing and understanding?
- How can one assess the effects of TSM ?
- In what way does TSM differ from the various Stress Relaxation Techniques which are popular today ?

3. Various Effects of stress on one's Life

4. Why is there a scarcity of stress management experts and Stress management consultants?

5. **What is the meaning of homeostatic Machinery? How is it involved in stress?**
6. **What are the dimensions of stress ?**
7. **What is the nature and importance of support systems?**
8. **What is the mechanisms of stress ?**
9. **Management of stress**
 - How to begin the Management of Stress ?
 - What is the next step ?
 - Why is it said that if a person is not keen, makes only superficial inquiry and does not pay fees, then he / she does not get results?
 - Is it useful to inform others about TSM course ?
 - What is the relevance of the philosopher's stone in stress management ?
 - What has stress management to do with the story of the priest and the pig ?
 - Can we understand the concept of TSM by the analogy of diver, gravity, degeneration and entropy?
 - How to explore the source of life and power within you ?
 - How to manage different types of physical, chemical and biological stressors ?
 - How to manage different types of sensory stressors?
 - How to manage different instinctual stressors? How to manage the emotional and intellectual stressors?
 - How to manage stress that results due to extraordinary circumstances which are faced by socially concerned individuals ?

10. **Conclusion**

1. INTRODUCTION

What is the meaning of stress ?
What is internal environment of the body ?
What is the importance of internal environment ?
What are the characteristics of this internal environment ?
What are the causes of stress ?
Are the stressors i.e. causes of stress, always dangerous ?
When do the stressors become dangerous ? Can stress be compared to a traffic jam ? How many people suffer from stress ? Why don't we notice stress ?
Why is the word stress "Management" used instead of "Eradication" or "Cure" of stress ?

WHAT IS THE MEANING OF STRESS?

Stress is a phenomenon which is associated with various ill effects. These effects are not merely on body but on instincts, mind, intelligence and perspective and thereby on behavior in family, at the working place and in a variety of circumstances in society. In other words stress alongwith its effects is like a large number of diseases damaging our lives in every possible way and that too simultaneously!

Stress is inseparable from life. Hence there is no escape from it. Only temporary escape is possible. For



Fig. 1.1: Stress management program is like a boat which helps you to cross the river successfully

temporary escape only two options are present.

- 1) Relaxation techniques
- 2) Habits forming drugs such as nicotine, alcohol etc. But these have hazardous effects on body when consumed excessively.

What is Total Stress Management (TSM) program ?

If we compare stress to river, then Total Stress Management (TSM) program is like a boat which can enable you to “cross the river”! This is further explained in Chapter No. 2, PP 19 - 26.

STRESS IS LIKE A HORSE

It would never leave us at any cost. So there is no lasting escape from it. There are only few options.

- A] Getting dragged after it, (Fig. 1.2)
- B]

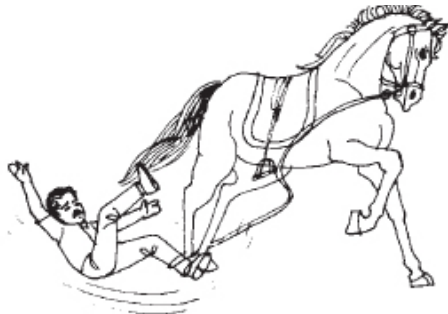


Fig. 1.2: Mismanagement of stress is akin to getting dragged by the horse

Getting bitten or beaten by it,

- C] Carrying it on our head.(Fig. 1.3)

D] Beating or killing the horse. (Barbaric, cowardly, disgusting and obnoxious. Isn't it? Since stress is inseparable from



Fig. 1.3: Mismanagement of stress is also like carrying the horse on head !

life, killing horse is equivalent to suicide!)

E] Learning to “ride” the horse with delight, which is what Total Stress Management (TSM), is. (Fig. 1.4)



Fig. 1.4: TSM is like enjoying the horse ride

STRESS IS ALSO LIKE A RIVER..... BUT



Fig. 1.5: TSM (Total Stress Management) is like life support system (inflated rubber tube) which helps you to reach the bank safely

We have no choice but to plunge in it. Once we are in it there are only two options.

Either to get drowned, or to learn to swim to the bank.

TSM is like a support system that enables you to float and reach the bank of the river safely. But not without your own involvement and active efforts. These are indispensable.

FROM THE SCIENTIFIC POINT OF VIEW

Stress means a variable degree of acute or chronic change in the internal environment of the body. The normal stress such as moderate exercise is useful. But when we talk of “stress” we actually mean HARMFUL STRESS OR DISTRESS, which causes adverse effects on almost every cell of the body making life miserable in several ways.(cf pp1, 2, 27-39).

WHAT IS INTERNAL ENVIRONMENT OF THE BODY?

The body cells contain fluid within them and they themselves are present in a fluid medium. This fluid which they contain and the fluid by which they are surrounded, together form the INTERNAL ENVIRONMENT OF THE BODY.

WHAT IS THE IMPORTANCE OF INTERNAL ENVIRONMENT?

The importance of the internal environment is that, various physical and chemical characteristics of the internal environment have to be maintained within a certain range if the body cells and hence the organism, have to function in the

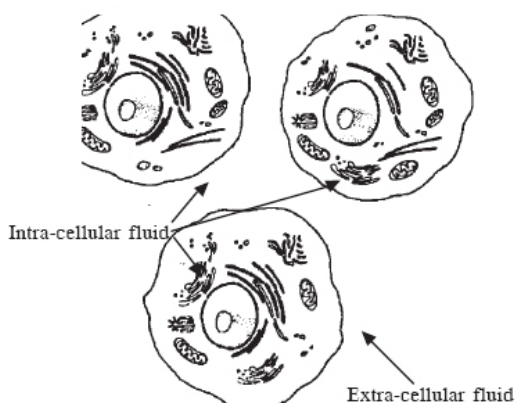


Fig. 1.6: Internal environment & body cells

normal i.e. healthy way. If the characteristics undergo drastic variations then STRESS develops. This stress causes damaging effects (effects of stress) on our life. This should explain to you the importance of the internal environment as well as importance of any factor/s, which may bring about changes in it.

WHAT ARE THE PHYSICAL AND CHEMICAL CHARACTERISTICS OF THIS INTERNAL ENVIRONMENT?

The internal environment i.e. the fluid inside the cells and surrounding the cells, has certain concentration of hydrogen, sodium, potassium, calcium, chloride, magnesium etc. It has certain osmolality, temperature, viscosity etc. You are all aware of one such physical characteristic viz. blood pressure. The text books of physiology, describe in details, the composition of various

substances present in the blood, interstitial fluid and intracellular fluid. The physical characteristics are also described in detail. But it is not necessary to list them here and burden your memory.

WHAT ARE THE CAUSES OF STRESS?

The causes of stress are called STRESSORS. The stressors are nothing else but exaggerated stimuli, which cause change in our internal environment beyond the normal range resulting in stress. The details of a multitude of STRESSORS are categorized systematically and described in brief in the chapter on dimensions of stress. (cf pp46-76).

ARE THE STRESSORS ALWAYS DANGEROUS ?

No. The environment neither remains unchanged nor does it change within a given restricted range. So the living beings are equipped to overcome even the stimuli which are exaggerated to some extent (stressors). In fact, stressors, which bring about changes in internal environment beyond normal range (up to a certain extent), are beneficial to living organisms and this is the reason why physical exercise, emotional excitement, intellectual work etc. are all beneficial when moderate. Sometimes this beneficial stress is referred to as “eustress”. EU is used as a prefix, meaning good or well.

WHEN DO THE STRESSORS BECOME DANGEROUS?

When the stressors increase in number, frequency, duration, intensity or complexity, the internal environment undergoes greater change (distress) and results in adverse effects on body cells. As a result of this, various clinical signs and various unpleasant symptoms develop. One may recover from them entirely and quickly or partially and slowly. Sometimes however, the individual may gradually deteriorate and even succumb to the effects of stressors. This depends on whether the stressors discontinue, reduce, continue or increase respectively.

CAN STRESS BE COMPARED TO A TRAFFIC JAM?

This is not an exact analogy but for the sake of

understanding STRESS, clearly, we will do such comparison. This is because, the understanding of STRESS in itself significantly reduces STRESS.

Similarity of stress to a traffic jam is depicted in figure 1.7 (a) on page 11.

1. The STRESSORS are like excess number of VEHICLES coming from all directions.

2. The individual under stress is like a square where the signals or the traffic police are not working.

3. The signs and symptoms of stress are like the excess crowding, anxiety due to inability to reach destinations, quarrels amongst the drivers, excessive blowing of horns, chemical pollution etc.

4. The pathology is inability of the vehicles to move and reach their destinations.

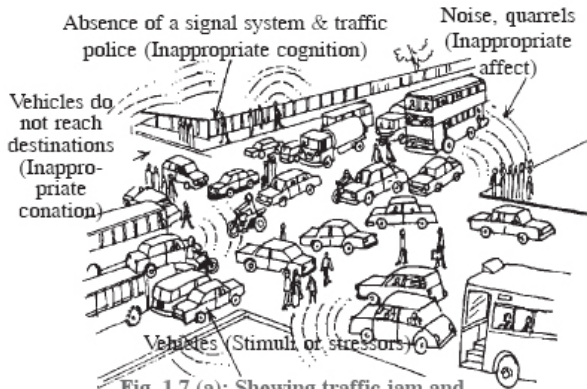


Fig. 1.7 (a): Showing traffic jam and its similarity with stress

Similarity of rectification of traffic jam with TSM is depicted in figure 1.7 (b) on page 12.

The **Relaxation Techniques** prevalent today are like arbitrary and isolated **efforts to calm down the drivers and prohibit the blowing of horns.**

The relaxation techniques therefore can bring about temporary peace (temporary symptomatic relief) but cannot help the vehicles to reach their destinations (cannot effectively remove the pathological changes and handle the stressors effectively).

TSM is like re-establishing the functioning of the signals and reinstituting the traffic police (perception) so that the crowding, jam (homeostatic disturbances or affect), blowing

of horns, quarrels (symptoms and signs) and the reaching of the destinations (handling the stressors and rectify the pathological changes), all are made possible. Please see fig. 1.7 b.



HOW MANY PEOPLE SUFFER FROM STRESS?

Everyone of us suffers from stress. This will be clear to you when you finish reading the chapter No. 6 on dimensions of stress.(page 49-79).

WHY DON'T WE NOTICE STRESS ?

First Reason : Stress usually being a slow process, acts like slow poisoning and hence goes on unnoticed until it acquires serious dimensions.

Second Reason : Many of us suffer from stress and attribute the effects of stress to more apparent things such as infection (which itself can result due to stress!). You can understand this if you appreciate the fact that we “see” the dust particles moving in a dust storm but we do not “see” the force of wind, which actually is the cause of the movement of the particles. The STRESS is like this unseen, enemy! Therefore it gets ignored.

Third Reason : The word STRESS, is used by any body and every body, without understanding, its meaning. This is similar to the usage of words such as democracy, socialism, secularism etc. This gives us a wrong impression that we know everything about it. As a result most of us develop a false notion that we can manage it without anybody's help. This is in fact one of the greatest illusions, or one of the greatest myths of all times.

Fourth Reason : Most of us are habituated to put up a brave face even when we are suffering. Many times, this is because of shyness, feeling of shame and so on.

Fifth Reason : We try to hide our sufferings i.e. stress because of the fear that we may be insulted, humiliated, ridiculed, or even exploited.

You can appreciate from the foregoing, why we do not notice the stress or stressed individuals without going into many more reasons, such as illiteracy, poverty, lack of time, lack of information, lack of dialogue and communication and so on.

You will be convinced of this fact even further after reading Chapter No. 3 on effect of stress, pages 28-39 and Chapter No. 6 Dimensions of stress, pages 49 - 79.

DOES THE EXTENT OF STRESS VARY ?

Yes. The extent of stress varies in accordance with the individual's perceptions, his/her homeostatic machinery (Homeostatic machinery exists right from the time of fertilization of ovum and sperm. It develops into several organs & tissues which work in a coordinated manner to keep the internal environment constant [within normal range]. For more details please refer Chapter No. 5, pages 45-48) and the nature, intensity, frequency, duration and number of stressors acting at a time and the complexity of the stressors. All these factors determine the extent of stress and its effects on the life of an individual and also on the environment (The environment includes physical, chemical, biological as well as the family, working place, society etc.).

WHY IS IT SAID THAT STRESS IS THE GREATEST KILLER IN THE WORLD TODAY?

This is because stress influences every cell of the body to a greater or lesser extent. Because of its far-reaching effects, on every cell of the body, stress can predispose an individual to a variety of problems, which are described later in Chapter No. 3, pages 28-39. Besides predisposing to many diseases, stress can actually cause many

diseases.

Lastly stress can aggravate many conditions, thereby increasing the morbidity and mortality.

We can appreciate this point by considering the following chain of events.

Stress can actually cause as well as aggravate diabetes mellitus. Diabetes mellitus in turn predisposes the individual to be inflicted by a variety of infections. One of the most dreaded of these is tuberculosis. Because of this all the family members, neighbors and colleagues of the patient are at a risk of developing tuberculosis.

In addition, diabetes is many times associated with a number of complications such as retinopathy, cataract, (complications of eye), neuropathy, (complications of nerves), nephropathy, (complications of kidney), gangrene (Gangrene means death and putrefaction of a part of body necessitating removal of that part (amputation) for survival) etc.

This would make it easy to understand why stress is considered the greatest killer in the world.

Interestingly, it becomes even greater killer because of:

- A) Inadequate research, inadequate understanding of stress and its management,
- B) Almost absolute lack of awareness and / or prevalence of misconception about the nature, gravity and management of stress in general public,
- C) Apathy in the government and people, in this extremely important area,
- D) Lack of readiness of the people to recognize, concede and manage stress,
- E) Prevalence of quackery (as is there in other fields also), helping to complicate the problem of stress and its management!

WHY IS THE WORD STRESS “MANAGEMENT” USED INSTEAD OF WORDS SUCH AS “ERADICATION” OR “CURE” OF STRESS ?

We use the word “stress management” because cure or eradication, are possible in certain diseases, but not in the case of stress. Neither can there be “eradication” of stress, nor can there be “cure” for stress. This is because, stress is inseparable from life and the only way to lead a satisfactory, strong, productive, prosperous and profound life, is to learn a scientific and efficient way of total stress management.

2. INTRODUCTION TO TOTAL STRESS MANAGEMENT [TSM]

What is total Stress Management (TSM) course?
What is the objective of TSM course? What exactly does this mean ?
Does TSM require a lot of memorizing and understanding ?
How can one assess usefulness and the effects of TSM Course?
In what way does TSM differ from the various Stress Relaxation Techniques popular today ?

WHAT IS TOTAL STRESS MANAGEMENT (TSM) COURSE?

TOTAL STRESS MANAGEMENT (TSM) course is a systematic course which embodies understanding of stress and its management through an interaction of about eight hours in four to eight sessions. The interaction can be one to one (TSM course for a single individual) or between a group and the stress management facilitator or consultant or expert (TSM course for a group). The TSM course can be given in a place suitable to the participants and the TSM facilitator, consultant or expert.

TSM course embodies interactive lectures, discussions, clearing the doubts of the participants, demonstrations and active participation (practical experience of the participants in TSM).

This book is a concise guide for total stress management.

WHAT IS THE OBJECTIVE OF (TSM) COURSE ?

Objective of TSM is to empower/equip/help the

participants to reveal the power within themselves to manage or overcome stress from time to time as and when it comes and enrich life with ever increasing prosperity and profundity.

WHAT EXACTLY DOES THIS MEAN?

For better understanding, the objective can be categorized in the following way.

1) It involves improvement in cognition :

Cognition involves sensing, interpreting, memorizing, questioning, pattern finding, analyzing, correlating, synthesizing, contemplating, understanding, appreciating, hypothesizing etc.

In short, cognition means processing of a huge variety of sensations impinging on our brain. One can also say that this is information processing. You can appreciate the importance of this faculty in stress management if you consider the two important facts, a) 24 hours of the day and twelve months of the year, every one of us gets sensory inputs and b) inappropriate or inaccurate cognition is responsible for stress to a very great extent.

Inappropriate cognition i.e. inability to figure out the nature of an object can be seen in case of a villager who sees a cellular phone or a personal computer for the first time.

Inappropriate cognition is also seen when we get baffled with the possible effects of genetic engineering on human life.

Cognition, thus being an integral, inseparable and absolutely essential part of our existence, TSM aims to improve cognition and make it as accurate as possible. This helps in improvement in the ability of an individual to do a correct appraisal of a variety of personal, familial, social, national and international problems (STRESSORS). Correct appraisal is a prerequisite to handle any problem (STRESSOR) successfully. The importance of such an appraisal can not be overemphasized.

2) It involves improvement in affect:

Affect means the effect of the variety of stimuli which may impinge on us in the form of various problems (STRESSORS). For example restlessness, worry, anxiety, which develop as a result of inappropriate cognition evident when we sit in an air plane for the first time is inappropriate affect. The affect is in a way, “sandwiched” between stimuli and the response. In general it involves the activity of various parts of nervous and endocrine system. But in many cases it may involve gross metabolic changes as well. The affect is usually experienced as a) confidence, enthusiasm, pleasure, happiness, love, attraction, patience, comfort etc. or b) sadness, jealousy, hatred, depression, inhibition, diffidence, loneliness, listlessness, impatience, discomfort etc.

3) It involves improvement in conation or action i.e. response:

It is important to understand what conation means. Conation is the response of an individual as a result of cognition and affect. It has to be appreciated that healthier cognition and affect would result into healthier conation i.e. actions. These constitute, appropriate physical, instinctual, emotional and intellectual responses.

Physical responses :

Proper posture while sitting, standing, walking etc., refinement in physical skills such as drawing, painting, sculpture etc.,

Instinctual responses :

Healthy satisfaction of hunger, thirst, sex, habitat, movement, herd instinct, survival instinct, maternal or paternal instincts etc. These involve proper eating, drinking, courtship and matrimonial behavior, socializing in a meaningful manner, walking, dancing, running etc., participating in struggles for justice, opposing exploitation, taking care of the children in a warm and mutually satisfying manner,

Emotional responses:

Spontaneous and warm gestures extended to family members, relatives, colleagues, friends etc., exercising civic sense, enthusiastic participation in national, regional, cultural festivals, addressing social problems, active involvement in one's job etc.

Intellectual responses:

Concentration, study and expertise in work, research and progressive innovation in one's field, intellectual participation in administration, planning and policy making by giving constructive creative suggestions etc.

This is achieved through acquiring healthier body, instincts, emotions and intelligence

Cognition, affect and conation are however not separated by watertight compartments !

All these culminate into a PERSPECTIVE of universal unity/continuity and in turn enriches all above.

DOES TSM REQUIRE A LOT OF MEMORIZING AND UNDERSTANDING?

TSM does require some memorizing and understanding, but only to the extent that they help in developing conviction about TSM. As the participant develops conviction about the concepts embodied in TSM, the participant's commitment in actual practice also increases. This is important because the degree of success in TSM is directly proportional to the degree of regularity and involvement in actual practice.

TSM is like
SWIMMING OR
TAKING BATH.
Memory and
understanding
are important for
conviction and
just as conviction
is required for
these things to be



Fig. 2.1: Total stress management is like bathing or swimming Joyful, Healthy, Refreshing !

practiced regularly and beneficially, conviction is required for the REGULARITY AND INVOLVEMENT in practice of TSM. But actual practice has no substitute.

HOW CAN ONE ASSESS THE USEFULNESS & EFFECTS OF TSM COURSE?

The objective (cf pp 20-24) incorporates the criteria of assessment or evaluation of the TSM course.

In fact these criteria are too many to be listed here. You can easily explore hundreds of criteria with respect to cognition, affect and conation. Further, you can also explore hundreds of biochemical & physiological parameters as well.

One can use these criteria for assessment of the results of TSM course. Some of these criteria include, biochemical parameters such as blood sugar, blood cholesterol etc., physiological parameters, such as blood pressure, symptomatic parameters, such as subjective sense of well being, sound sleep etc. These are reflections of the state of physical health. Instinctual parameters include the interpersonal relationship with spouse, healthy eating and drinking habits etc., which are reflections of the state of instinctual health. Emotional parameters include relationship with family members, colleagues etc., which are reflections of the state of in emotional and behavioral health and intellectual parameters include performance in studies, interviews, competitions, job etc. which are reflections of the state of intellectual health.

One can use a simple method.

This method would include recognition and wherever feasible quantification of various problems or effects of stress before starting the TSM course and then repeating the same procedures at the end of a specified period, for assessing beneficial changes in each of them.

IN WHAT WAY DOES TSM DIFFER FROM THE VARIOUS STRESS RELAXATION TECHNIQUES POPULAR TODAY?

TSM is totally different from MERE STRESS RELAXATION

TECHNIQUES, which are palliative and do not treat the root cause. In fact, practice of mere relaxation techniques, with the hope that they would manage stress is like expecting mere pain killers, to cure a disease like TUBERCULOSIS. This is explained previously on pages 10, 12 Fig. 1 .7a & 1.7b and later through various examples in Chapter No. 9, pages 104 onwards.

3. VARIOUS EFFECTS OF STRESS ON ONE'S LIFE

The effects of stress are numerous. But the important amongst them are listed below so as to give you an idea about the extent of damage STRESS CAN cause and how it (directly or indirectly) is responsible for causation or aggravation of many diseases.

A) MIND

Mind is the first to be affected.

Unpleasant symptoms such as tension, anxiety, worry, fear, despair, helplessness, dejection, irritability, restlessness, apathy, suffocation, lack of confidence, listlessness, depression, self pity, sadness, frustration, unpleasant dreams, insomnia (**Insomnia**: Lack of disturbance of sleep) suicidal tendencies, phobia (abnormal and excessive fear of cancer, heart disease, diabetes etc.), undesirable habits such as nail biting, tics. (Habit of contraction, which is more or less involuntary of a group of associated muscles) etc.

B) FAMILY

Lack of warmth and human bonds, lack of dialogue and communication amongst family members, lack of mutual respect and love, indifference towards one another, petty quarrels, bitterness, violence, impatience, intolerance, lack of harmony, lack of cleanliness etc.

C) PERFORMANCE

Inefficiency, absenteeism, indifference, irresponsibility and carelessness towards duty, lack of discipline, etc.

D) INTELLIGENCE

Forgetfulness, confusion, indecision, difficulty in problem solving, lack of imagination, difficulty in learning etc.

E) SOCIAL BEHAVIOUR

Pettiness, dishonesty, lawlessness, lack of punctuality, unreliability, deception, corruption, crime etc.

F) MATRIMONY

Discord, separation, divorce etc.

G) SEXUALITY

Impotence (lack of erection of penis & hence inability to perform intercourse), premature ejaculation (expulsion of seminal fluid before reaching

orgasm, peak, height or climax of sexual pleasure), lack of ejaculation (absence of expulsion of seminal fluid during sexual intercourse), fear or aversion towards sex, frigidity (lack of sexual attraction or desire), dyspareunia (painful intercourse) etc. leading to lack of sexual satisfaction which in turn can cause several damaging effects on the life of an individual, family and even the entire society.

H) BODY

Various effects on body are given below. Many terms used are medical terms and since they are derived from Greek, Latin etc. you may not be familiar with them. Though wherever possible & feasible, some terms are explained, it is not possible and not necessary to explain all terms. This is because, you do not have to really understand them unless you are a medical person, in which case you would be (already) familiar with them !

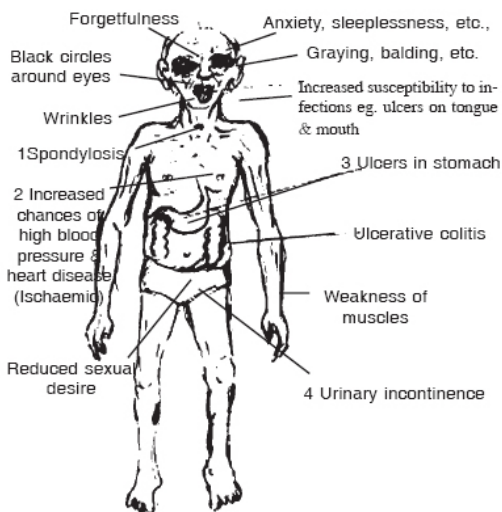


Fig. 3.1: Illustrating some effect of stress in human life

1. *Spondylosis* : Stiffening (ankylosis) of vertebral joints. Also, wear and tear and degeneration of vertebra & intervertebral discs producing symptoms of pain, weakness etc. in related parts such as neck, arms, hands, back etc.
2. *Ischaemia* : Reduction in blood supply.
3. *Ulcerative colitis* : Ulcer formation in colon (large intestine).
4. *Incontinence* : Inability to control the act of passing urine. This may cause passage of urine on coughing, sneezing etc. as the individual is not able to hold back urine.

Immune system

This is an organisation of different types of cells which carries out well coordinated activities so as to protect the body from various diseases. Dysfunction of immune system leads to increased susceptibility to a variety of infections including acquired immuno deficiency syndrome (AIDS), autoimmune diseases and even cancer.

Following factors decrease due to stress.

a) Monoclonal antibodies : These are substances secreted by only one type of B lymphocytes.

Their function is to protect body from damaging influence of corresponding specific type of substances called antigens.

b) Tumor Necrosis Factor (TNF) : This substance is called so, because it was found to inhibit cancer cells in a type of tumor produced by cancer. It has however other useful functions also.

c) Interferon (INF) : Interferons alpha and beta are produced by virally infected lymphocytes and other type of cells respectively. These substances inhibit protein synthesis and promote degradation of messenger Ribonucleic Acid (mRNA) in the host cells. Since viruses partly depend for their protein supply on protein synthesized with the help of host mRNA and since it is degraded by interferons, the interferons inhibit multiplication of viruses and thus protect body.

Interferons are also released in extra cellular fluid and form barrier coat around uninfected healthy lymphocytes.

d) Interleukin 2 (INL2) : This substance is produced by T helper lymphocytes which are activated. INL2 activates more T helper lymphocytes. T helper lymphocytes also produce substances called lymphokines, which activate lymphocytes which produce antibodies. Antibodies are important in protecting body from specific substances called antigens; formed because of infection or other causes.

Eyes

Eye strain, dark circles around eyes, wrinkles around eyes, lack of enthusiasm and confidence in eyes etc. It is possible that stress which can cause or aggravate diabetes mellitus, can also cause a variety of complications of diabetes related to eyes, such as retinopathy (***Retinopathy** means disease changes in retina, causing disturbance of vision.*), cataract (***Cataract** means pathological changes in lens of eye making it opaque and thus lead to partial or complete blindness.*), etc.

Ears

Deafness due to high noise levels, fungal or bacterial infections of outer and middle ear due to

- a) Lack of adequate care
- b) Reduction in the resistance of the body, associated with stress.

Nose

Scaling of the delicate mucous membrane covering the inside of the nose, due to hot, dry and/or polluted environment. There is a condition which appears like common cold. This is called vasomotor rhinitis. This is associated with running of nose and sneezes without any apparent cause. Stress is likely to be an important contributory factor in view of its influence on autonomic nervous system and blood vessels.

Mouth

Excessive salivation or drying of mouth results due to nervousness resulting from stress. The infections of mouth, gums, teeth etc. can cause inflammation and may increase salivation. Infections of salivary glands can also cause increase in formation of saliva. Infections usually result due to decrease in body resistance which is many times directly due to some kind of stress. Alternatively infections can also result due to reduced resistance resulting from inadequate care of mouth, bad oral hygiene and improper nutrition, which in turn can be because of stress. These conditions are many times associated with socially despised condition of bad breath called halitosis.

Cardiovascular system

Coronary (**Coronary** means related to heart. Coronary arteries are the blood vessels which supply blood to this vitally important organ viz. heart. It should be appreciated that coronary artery disease would cause disturbance of pumping activity of heart and that would lead to disturbance of blood supply to all important parts of body including brain !) artery disease (CAD) , high blood pressure, stroke (Stroke means effects produced by sudden stoppage of blood supply to, or bursting of a blood vessel in one or more parts of brain. This usually results in paralysis of one or both sides and lower two, upper two or all four limbs.), arrhythmias (arrhythmias means different abnormalities of rhythm of the pumping of heart. Some abnormalities are relatively innocuous while some can be fatal), etc. with symptoms such as giddiness, palpitations (disturbing awareness of increase in heart rate and/or increase in force of pumping), restlessness, paralysis, chest pain etc.

Stress is known to be responsible for cardiovascular diseases in most of those patients in whom the usual risk factors such as smoking, drinking, excessive eating etc. are all absent. Moreover stress increases the risk caused by these as well as other risk factors.

Muscles and joints

Muscular weakness, tension headache, backache, cervical, thoracic and lumbar spondylosis (cf page28) spasms, costochondritis (inflammation of joints between ribs and sternum. [Costo = Ribs, Chondro = Cartilage, It is = Inflammation]. This is usually associated with pains and aches in the region of chest, bruxism (bruxism means biting of teeth and edges which in turn cause injury to mouth and / or tongue), temporomandibular arthritis, tooth aches, stiff joints etc. Inflammation of the joint between a bone in front of ear called temporal bone of lower jaw, which is called mandible. Temporal means related to time and interestingly enough, the hair, in this region, start graying first and thereby signal the time that has passed and the aging that has commenced! The mandible is called so, because in Latin it means to chew. Many times there are additional symptoms such as

tingling, numbness, hyperaesthesia, burning sensation etc.

Connective tissue

Rheumatoid arthritis (autoimmune disease = Disease in which body produces antibodies against proteins of its own and causing damage to various tissues and organs), related inflammatory diseases of connective tissue. Many connective tissue disorders such as tendinitis (Inflammation of the tapering ends of muscles which fuse with bone, cartilage or ligament. Ligament is a tough connective tissue which usually covers and protects the joint), ligament sprains etc. which are associated with annoying pain are caused because of stress related postural changes as well as actions.

Respiratory system

Asthma, hay fever (hypersensitivity reactions), increased susceptibility to respiratory infections, shallow and rapid breathing etc.

Digestive system

Belching, flatulence, nausea, vomiting, anorexia (lack of appetite) hyperacidity, ulcer, irritable bowel syndrome, ulcerative colitis, diarrhea, constipation etc.

Genito - Urinary system

Nocturnal (Nighttime) bed wetting, urinary incontinence (lack of control over the act of micturition due to atrophy of female urethra leading to inability to stop urine flow from bladder) resulting in micturition (urination or passing urine), in response to coughing, sneezing etc.

Skin and mucous membranes

Dry skin, lack of elasticity, lack of lustre, acne, pimples, scabies more in crowded places (crowding itself can cause stress), eczema, dryness, wrinkles, dark circles around the eyes, psoriasis (a skin disease of many varieties, characterized by the formation of scaly red patches on extensor surfaces of the body), lichen planus (an inflammatory skin disease with wide flat papules, often

very persistent and occurring in circumscribed patches), neurodermatitis (chronic itching skin eruption due to nervous disease), urticaria (skin rash associated with itching), sweating of palms and feet etc.

Endocrine system

Amenorrhea (absence of menstrual cycle during reproductive age in absence of pregnancy or any organic lesion), diabetes mellitus, stunting of growth, obesity etc. In fact, secretion of most of the hormones is adversely affected contributing to most of the conditions mentioned earlier and later.

Nervous system

Fatigue, lethargy, overeating, anorexia nervosa (Anorexia nervosa is a disorder in which patient may starve himself or herself to such an extent that even death may result), incoordination, defects in speech, type A behavior (more anxious and overactive with reddish complexion), depression, insomnia, tremors, stammering, anorexia nervosa due to distorted body image, self induced vomiting, extreme emaciation and distorted view about eating, suicidal tendencies.

Body posture

Posture becomes defective due to stress. Defective posture is many times associated with drooping shoulders, kyphosis (hump on back) etc., which either causes or aggravates musculoskeletal and connective tissue disorders, as mentioned earlier. Defective posture and the resultant disorders further aggravate the stress.

Hair

Premature graying, baldness, dandruff, seborrhea (excessive secretion oily material by glands of skin called sebaceous glands. This causes formation of white or yellowish greasy scales or cheesy plugs on body and is associated with itching) , brittleness and fragility of hair etc.

Starvation

Stress can make the individual starve which in itself is a form of stress and causes primary as well as secondary protein deficiency leading to fall in interleukin thereby causing reduction in the stimulation of liver and hence reduction in the synthesis of albumin by the liver takes place.

Blood

Stress erythrocytosis (active anxious hard working florid person)

personality A : stressed more and IHD (Ischaemic Heart Disease) more.

personality B: stressed less, immune to IHD.

Stress due to shock , burns, trauma, sepsis (severe infection causing pus which may spread) etc.:

cause ulcers in stomach which are different from peptic ulcer.

Looks

Looks may not be considered as important by some but for most of the people they are important. The flourishing business of beauticians is a proof of this! It is therefore important to note the adverse effects of stress on looks!

The person under stress can be easily recognized from his facial expressions and his body language.

His or her facial expressions reflect helplessness, listlessness, misery, anguish, restlessness, anxiety, indifference etc. These things apart from being unpleasant to the individual, leave bad impression on the others. (This can have bad effect on interpersonal behavior and relationship).

4. WHY IS THERE A SCARCITY OF STRESS MANAGEMENT EXPERTS AND CONSULTANTS ?

There are three reasons for this.

1) The scientific study, research and awareness of stress, as a distinct entity, are relatively recent.

This does not mean that stress was not studied at all. It has been studied for thousands of years. However, it was in the form of philosophy of life, religious practices, yoga, ethics, ayurveda, naturopathy etc. The understanding of stress through these endeavors has been profound. But the more exact, clinical picture became clear through the work of Walter Bradford Cannon between 1914 and 1935 and Hans Selye around 1946. Hans Selye crystallized the concept of stress. Hans Selye described a definite entity that results from stress in experimental animals and named it general adaptation syndrome (GAS). This condition is characterized by atrophy of thymus, ulcers in the stomach and hypertrophy of adrenal cortex.

Thymus is a gland which is important part of immune system. Atrophy indicates deficiency of immune system due to stress. Adrenal gland has two parts, outer is called adrenal cortex and inner core is called adrenal medulla.

Hypertrophy means enlargement. This occurs because

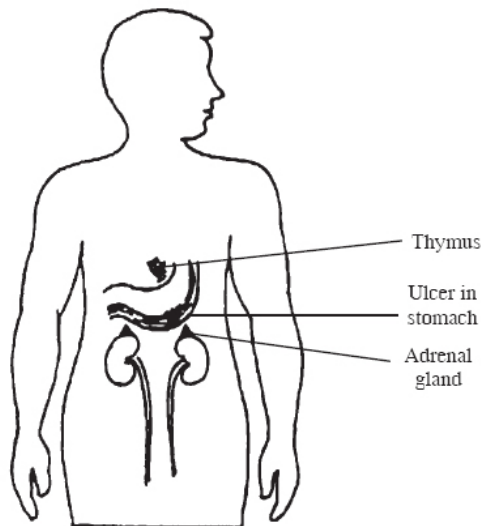


Fig. 4.1: General Adaptation Syndrome (GAS)

during stress these glands become overactive. This can cause ulcers in stomach.

More recently in 1991, Ostell described STRESS as transactional or interactional process. Thus it is not merely restricted to the agency (stimulus) which causes it but the appraisal or perception or the idea of the individual about agency and the response of the individual to the agency. Thus the agency, perception and response all contribute to the stress. He further states that if the duration, frequency, intensity of the agencies or stimuli causing stress is more than a particular range and they are uncontrollable, then they become unpleasant and taxing, to the homeostatic systems of the body. (*Pathophysiology, The Biologic Basics for Disease in Adults & Children, Kathryn L. McCance and Sue E. Huether, 2nd ed, Mosby PP 299-300.*)

The work being so recent, the general public does not know the existence and dangers of stress and hence there is VERY LITTLE DEMAND FOR THE MANAGEMENT OF STRESS. Hence even though very important, THE NUMBER OF SCIENTIFICALLY TRAINED AND GENUINE STRESS MANAGEMENT CONSULTANTS IS GROSSLY INADEQUATE.

- 2) There has been inadequate dialogue and understanding amongst the experts in biological and social sciences, religion, yoga, alternative systems of medicine, philosophy etc. This has led to development of institutions or advisors, which vociferously claim total management of the stress! This is why advice and help are sought from entities such as:
 - a) Religious, spiritual, mystic, yogic, parapsychological experts or gurus
 - b) Clinical psychologists, psychiatrists, counselors, medical doctors,
 - c) Teachers, parents, friends, relatives, elderly people, etc..
- 3) The third reason is many people do not know

that they are under stress and many are shy of admitting it because they consider it to be some kind of inadequacy on their part and hence feel there is some kind of shame or taboo attached to the act of going for stress management.

Thus since the scientific knowledge is relatively recent and people in general are unaware of it, since self styled stress management experts and consultants (who do not have adequate understanding of stress and its management) are easily acceptable to gullible people and since many of those who suffer from stress feel shy of admitting it and seeking help for it, the atmosphere at present, is not favourable for Total Stress Management programs through which common individuals can be helped and experts / consultants can be developed through proper training).

5. WHAT IS THE MEANING OF HOMEOSTATIC MACHINERY? HOW IS IT INVOLVED IN STRESS?

Homeostatic systems are the systems or mechanisms, which control the internal environment in a range, which is essential for the health of every cell of the body.

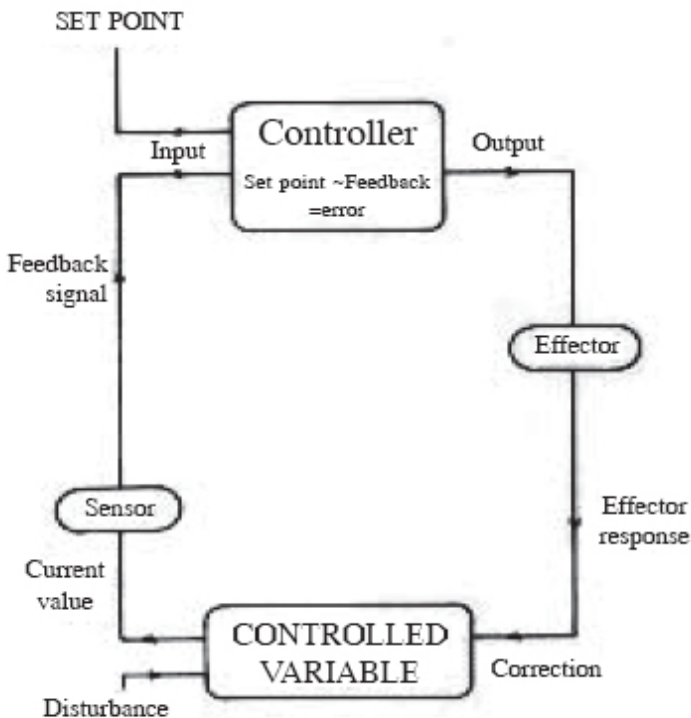


Fig. 5.1: Homeostatic mechanism

Putting it in simple words, the homeostatic systems (The term homeostasis was first used by Walter Bradford Cannon in the beginning of 20th Century, to describe the maintenance of constancy in the physical & chemical states of the internal environment of an organism.) are formed of following components. A detector, which detects the change in environment, an afferent limb or a way through which the information about the change in the environment reaches the center, the center which

interprets the change/s and sends efferent orders for the nullification of the change and in ABNORMAL INSTANCES, as well as in exceptional physiological circumstances, (*One example of an exceptional physiological instance is surge in secretion of leutinizing hormone (LH) just before ovulation (monthly expulsion of ovum from ovary).*)multiplication of the change.

The afferent limb may be formed by a nerve fiber or by blood itself. Further, if there is nullification of the change then it is called NEGATIVE FEED BACK mechanism and if there is multiplication of the change then it is called POSITIVE FEED BACK mechanism.



Fig. 5.2: A human being faces hundreds of stressors !

One can appreciate this by taking the example of temperature which is regulated by negative feed back mechanism and also by taking the example of loss of blood beyond 1.5 liters, which causes fall in blood pressure, to cause further and progressive fall in blood pressure which is called hypovolemic (caused by reduction in the volume of blood) shock which is caused by positive feed back mechanism.

The homeostatic mechanisms also possess one more components called SET POINT. This means a value of

a variable towards which the variable returns from the change.

Yet another interesting aspect of homeostatic mechanisms is that their efficiency also varies. It is judged by the ratio of correction and the error.

Correction is the extent to which the change is nullified and the error is the change which persists in spite of the homeostatic control mechanisms.

When duration, frequency, intensity and complexity of the agencies or stimuli (or problems) causing stress is more than a particular limit the alteration in the internal environment goes beyond normal range or normal limits. The normal range or limits may return if there is adaptation or if the stimuli do not continue. But there is a state of exhaustion if the homeostatic mechanisms fail permanently. This can cause permanent damage, which may be as serious as death or suicide.

6. WHAT ARE THE DIMENSIONS OF STRESS?

It is to be appreciated that Ostell's definition pertains to human beings. Though it is very useful and important, the phenomenon of stress must be grasped in the following way, for a thorough understanding and effective management of stress.

A) "STRESS" IN NONLIVING THINGS ?

Stress of mechanical nature (not biological) is present in nonliving things!

When force is applied to an object, there is definite internal change in the object and also there is change in terms of displacement.

This force is akin to stimulus in the case of living beings. The internal change is akin to homeostatic change i.e. change in the internal environment in case of the living beings.

The displacement of an object is akin to response in case of living beings.

The relationship between the force, internal change and displacement are predictable and stereotypical.

It is obvious that if an object is subjected to a force, which it cannot sustain then it may be damaged. This is akin to (harmful) stress in living beings.

If the force is more, then it acts akin to a stressor, internal change becomes more and comparable to gross homeostatic disturbance and the displacement which is also in excess becomes analogous to deleterious effects, symptoms and signs in case of a living being.

Let us see the nature of stress in case of unicellular organism.

B) STRESS IN UNICELLULAR ANIMALS

The stressors are exaggerated PHYSICAL, CHEMICAL and BIOLOGICAL stimuli.

Changes in gravity, accelerations, vibrations, pressure, electric shock, osmolality (*Osmolality roughly corresponds to the property of fluid by which it exerts pressure and tends to move from one compartment to another.*), temperature, radiation, changes in hydrogen ion concentration i.e. pH (*PH is a measure of acidity or alkatinity.*), changes in the concentration of other electrolytes such as sodium, chloride, potassium etc., presence of other unicellular organisms such as viruses, bacteria, fungi etc. can act as STRESSORS. Once the changes in stressors are beyond the limit, the homeostatic mechanisms, fail to maintain the internal environment, which changes beyond normal range and the animal suffers from stress or succumbs to stress.

The STRESSORS, homeostatic disturbances and the responses of the animal are relatively, more complex as compared to those in nonliving things. Moreover they are less stereotypical, though still, fairly predictable.

It is important to note that the stressors in case of unicellular organisms are increased because of the addition of the biological stressors.

C) STRESS IN ANIMALS WHICH ARE HIGHER IN EVOLUTIONARY SCALE

In animals which are multicellular and which we are going to consider now, there is perceptible increase in the LEVEL OF CONSCIOUSNESS. Thus there is CONSCIOUS CONCOMITANT TO THE SENSATIONS (Visual, auditory, olfactory, gustatory, tactile, pain, temperature, itching, gravity, acceleration etc.). In addition, due to the development of central nervous system and endocrine system there is development of INSTINCTS.

SENSATIONS are useful for survival and health. But when they exceed in number, intensity, duration, frequency and variety (complexity), they act as STRESSORS and cause adverse effects. Thus animals such as rabbit, cat etc. would

develop stress due to increase in the number and nature of sensations due to deforestation and domestication respectively. Similarly they would be stressed due to inadequate fulfillment of instinctual needs.

Some of the instincts and the nature of stress related to them are described below.

MOVEMENT

If an animal is confined to a cage or exposed to abnormally rapid movement, stress is produced which damages the body systems.

HABITAT

Habitat means a particular environment to which the animal prefers to remain confined. This is because of the limitations of the central nervous system. Animal remains in a particular location and pattern of movement and if this is changed then stress is produced.

HUNGER

Lack of food, change in the type of food, change in the timing of food etc. cause stress.

THIRST

Lack of water, change in the source and timing of water (as in case of animals in zoo), produces stress.

REPRODUCTION

Deprivation of sexual mate is stressful.

HERD TENDENCY

Isolation from the herd leads to stress.

PARENTAL CARE

Separating the newborn from the mother produces stress. The readers must have observed how intensely a cat cries if its kitten dies because of one cause or another.

SURVIVAL

Fear of predator produces stress and is evident when a cat faces a dog. The hair on the body and tail is raised. Further, the tail becomes erect.

It must be appreciated that the animals at this and

around this stage of evolution, face physical, chemical, biological stressors as well as stressors resulting from the development of sensations and instincts. This development of sensations and instincts, increases the number and complexity of stressors tremendously.

D) STRESS IN HUMAN BEINGS

Besides all the stressors mentioned above, more stressors come into play because of further development of nervous system which is associated with the development of society!

Let us first see what is the situation in relatively simple society.

In the tribal communities, life seems to revolve around survival and celebration. Thus the rules and regulations are minimal and simple. Every one seems to work for the community and for the self. The life style is simple and is largely restricted to protecting the tribe, procuring food and sustaining the tribe, reproducing and continuing the tribe and thus enjoying the life together through struggle, dance and music. There is an element of thankfulness to natural powers for their providence!

This simple life is akin to the childhood, which is free of a variety of complexities, which characterize even a slightly more advanced human society.

However like children, these human beings have feelings, thoughts, imagination and these can be influenced in a pleasant or unpleasant manner.

Thus, in tribal communities as well as in the case of children there are emotional and intellectual stresses.

The emotional and intellectual stressors are simple and may be events, which cause jealousy, hatred, insult, sadness etc. And situations which create questions or problems in day to day life, respectively.

The simple organization however needs certain rules, codes of conduct, values, conventions etc. and provision for their implementation. This provision for governance gets evolved into simple government in the form of a leader

of the tribe.

E) STRESS IN AGRARIAN COMMUNITIES: These are relatively more complex. There is surplus production giving rise to division of labor and complexity of social, economic, family and other types of relationships. In short the overall social organization is more complex.

This complexity of organization needs more and more complex and well defined rules, codes of conduct, values, conventions etc. and more elaborate provision for their implementation. This provision for elaborate governance gets evolved into more versatile government in the form of a king, his ministry, his army and such other things.

Somewhere around this time there occurs a development of pre-religious and religious doctrines.

These doctrines can be coercive (act as stressors) on the one hand (because they restrict the individual freedom) and comforting (because they advise, preach and also provide solace ensuring a reasonably healthy subsistence and answer many of the questions or dilemmas of an individual, thus acting as support systems (*Support system means institutions or individuals who provide advice, guidance, company, love, assurance etc. Proper support system are important for individual and social wellbeing.*) on the other.

Stressors which directly disturb the emotions (EMOTIONAL STRESSORS) and thereby the body may be categorized for the sake of simplicity and listed as follows.

Family

Ageing, disease, disablement, handicap, addiction, death, discord, harassment, loneliness, unwantedness etc. amongst family members.

Social

Social discrimination, oppression, lack of justice, inequality, caste discrimination, untouchability (*Untouchability was imposed on some people in India because of solid political reasons or as a deterrent punishment for some acts which were then considered antisocial.*) outcasting, (Outcasting involves wide ranging steps taken by society to stop cooperation with an Individual. This is similar to imposing sanctions. The individual had to suffer in

every respect, in his / her caste as well as others castes in a society. Caste used compromise a group (within a society) doing a particular job. The conventions, traditions and overall life pattern used to be common to the members of a caste. Similarly marriage used to take place amongst the members of that caste only.) etc.

Cultural

Coercive cultural rules and conventions such as shaving head, taboo on premarital sex, the tradition of SATI etc. (In India there was a custom of shaving head of woman immediately after she became a widow. Apparently this was aimed at disfiguring the woman so as to prevent male members from getting sexually attracted to her and also to suppress sexual desire in her. This could be to avoid promiscuity and / or illicit, illegitimate and socioeconomically unsupported progeny. The taboo on premarital sex and the tradition SATI (Cremation of a woman along with her dead husband) were also aimed at preventing illicit, illegitimate of socioeconomically insecure progeny. These acts which appear cruel today, were accepted in the past by majority in the society in view of total lack of contraceptive measures including medical termination of pregnancy.

These customs could also have been adopted to enforce loyalty and stability of a family unit and society.

However such coercive measures were not imposed on males. A widower was not forced to live condemned life or forced to get cremated with his dead wife. Premarital sex in males also was not as vehemently condemned as in case of females. This could be so, because women were economically dependent & vulnerable to sexual exploitation and were victims of chauvinistic or coercive - but always barbaric behaviour of the members of the same society as well as enemy respectively.

Apart from wars amongst thousands of small & big rulers in different region of India, there were several aggressions throughout last two to three thousand years. It appears that some of the ways of establishing supremacy included desmechion of places of worship, destruction of idols and

rape of the women from opposite camp. The risk of rapes and birth of socioeconomically unsupported was real.

Hence the customs of shaving head, SATI and taboo of premarital sex were not adopted through mere paranoid or sadistic thinking. On this background it should be clear to every one that the other countries & religious powers have no right to condemn India and her culture.

While these customs and conventions (which already are on verge of extinction) should be vehemently opposed, sense of guilt and lowness must be done away with).

Occupational

Harassment by the employer (landlord), odd/protracted hours of work, lack of job satisfaction, lack of appreciation, lack of recognition, bad working environment such as lack of light, lack of fresh air, excessive responsibilities without commensurate powers, inappropriate and over demanding dead lines, lack of accountability, prevalence of discrimination, nepotism etc.

Religious

Persecution, forceful conversion, discord amongst different religious communities, or conflicting sects within the same religion, religious discrimination etc.

Marital

Harassment by spouse, dowry problems, problems of working wives and working mothers, (such as those working in the farms, forests, plantations such as tea, coffee plantations etc.), problems related to lack of issue etc.

Economic

Insecurity due to increasing prices, lack of housing, inadequate water supply, inadequate electricity etc.

Environmental

Changing ecosystems, decreasing greenery, increase in background noise, light, vibrations, radiation, chemical pollution etc.,

Physical

Pain, disease, poor self image due to obesity, dwarfism, disfigurement, handicap, aging etc.

Psychological

Even if one or more of these factors may not actually be present there can be fear of these and that can be quite stressful.

In addition to emotional stressors there are some STRESSORS in human beings which act through intelligence (intellectual stressors) of the individual and affect the emotions and the body in an adverse manner.

One of the most important intellectual STRESSORS is education. To understand how education acts as an important stressor, one must understand the basic concept of education.

Education is defined in various ways but it can be safely said to have three domains, which are as follows.

AFFECTIVE : Affective domain is characterized by enthusiasm, buoyancy, affection, concern, joy, tolerance, self esteem, mutual respect, mutual trust, commitment, dedication, confidence, positive and victorious spirit. It also incorporates patience needed in skillful activities. In short, affective domain involves healthiness of feelings which are essential for the development of proper cognitive and psychomotor domains.

In absence of healthy feelings one may develop cognitive and psychomotor domain but without human element. Thus a person with defective affective domain is likely to develop cognitive & psychomotor domains but without proper and socially beneficial content.

The outcome is antisocial or selfish thoughts, plans and activities.

In short a surgeon with defective affective domain may think of mere material gains, use manipulative skills for attracting patients and use surgical skills for doing unnecessary surgery.

Thus good feelings and good (socially beneficial) actions involve desire and enthusiasm to learn and use the knowledge for the benefit of society.

Good feelings and good actions constitute the foundation for intellectual, emotional, instinctual and physical health. They constitute the basis for educational, occupational, economic, cultural and such several aspects of health.

Conversely healthy development of cognitive and psychomotor domain can complement the development of affective domain.

PSYCHOMOTOR : Ability to appreciate skills and ability to perform skillful activities, with speed, accuracy, elegance, ease of performance etc. The skills may involve surgery, playing a musical instrument, playing basket ball or carpentry! Psychomotor domain can not be developed properly unless affective and cognitive domain are healthily developed.

The desire and plans to use psychomotor skills for social welfare represent complimentary role of affective and cognitive domains. Similarly satisfaction and appraisal of psychomotor activities indicate role of the affective & cognitive domains in the development of psychomotor domain.

This also involves all the different aspects of health.

COGNITIVE DOMAIN: This includes accurate perception of problems, understanding, conceptualization, recall, analysis, contemplation, synthesis, planning, policy making and such other facilities. Healthy development of cognitive domain complements the healthy development of other two domains, in as much as healthy development affective and psychomotor domains complements the healthy development of cognitive domain.

Thus enriching someone's affective domain through love, care, concern and service can prepare an individual for healthy development of cognitive domain. Similarly, Psychomotor skills such as proper breathing, practice of yogasanas (different body postures of hathayoga(Hathayoga=

Ha signifies cooling neuro electrical and tha signifies warming neuroelectrical activity.

These are called NADIS which are fibers or path ways. “Ha” is also called Chandra (moon) nadi and “Tha” is also called Surya(Sun) nadi. From these two terms the Indian system of personality development came to be called HATHAYOGA. Also left nostril leads to Chandra nadi and right nostril to Surya nadi. From physiological point of view these seem to represent or seem to be analogous to complementary or balancing neuroendocrine metabolic activities.) can complement the healthy development of cognitive domain.

It is clear that all domains have three components viz. Cognition (Perception), affect (feelings) and conation (response).

Though the traditional system of education in villages was simple, it had all the components stated above. In addition it involved the element of productivity which worked as an incentive for the good work for that individual, that family and that region or state. It boosted all the domains of education.

The children used to learn at home or on farm a) various skills required in job (psychomotor) b) various rules and regulation to be observed for social welfare loving and caring parents (affective). c) Information essential in their respective jobs (cognitive).

This process also ensured that the children enjoyed asserting creativity & productivity thereby growing in confidence every day.

However the education, even in the villages, shifted from homes, home industries and farms to nurseries, Kindergartens, schools, colleges, universities, corporate industries, research institutions etc. and all the domains suffered and the productivity also suffered immeasurably.

Cognition suffered because of:

- a) Huge number of students, in a single class making following three things impossible. These things are: i) individual attention ii) dialogue iii) discussions,

- b) Lack of adequate salary and economic security to the teachers taking away the initiative
- c) Increase in alienation with respect to student's background and aptitude,
- d) Lack of adequate incentive to the students themselves (which is possible with education which has the element of production and earning), to the family and to the nation,
- e) Lack of conviction in the teachers and students because of the irrelevance of education to the day to day life and lack of productivity in the education.

Affective domain suffered due to:

Isolation of the children from their parents and their environment at an early age and lack of warm bonds due to huge number of students making personal communication difficult and cut throat competition amongst them, which nurtures jealousy.

Psychomotor domain suffered due to:

Almost total lack of opportunities to actually participate in handicrafts, various sports, performing arts etc.

This education system brought excessive load on the exchequer, prevented a huge section of society from producing and thereby drastically reducing the income of the families concerned as well as the nation and also simultaneously lead to massive drop outs.

Thus this education system:

- a) Brought restrictions on the mobility causing what is called hypokinetic stress,



Fig. 6.1: Present education (Rote Learning) leads to boredom, hypokinetic Stress & visual strain

b) Disintegrated and/or alienated the students from their background and the natural traits (which is similar to the stress of alienation akin to changing of habitat and culture),

c) lacks love and care for students due to their being away from the parents for almost whole day (causing emotional stress) and deprives the parents of natural instinct of parental care.

d) Lacks productive activities leading to economic loss of the individual student, the family of the student and the nation (emotional stress due to feeling of dependence and hence diffidence). Because of large number of dropouts who are cut off from their background cheap labour becomes available and exploitation becomes easy. This leads to desperation and helplessness amongst these drop outs, who take up any job for survival and subsistence.

It is essential to note that in India billions of rupees are spent on construction, decoration and maintenance of school and college buildings and payment of millions of teachers and



Fig. 6.2: Children who are cut off from their background and skills running in their families through generations and who cannot afford unproductive education due to economic reasons and / or because of alien curriculums become desperate and resort to even begging

other staff members engaged in unproductive exercises and weaken the national economy. The developmental activities suffer and millions of students drop out due to economic reasons and are forced into child labor. (Productive element in education by itself would radically reduce the dropouts and solve the problem of child labor.) Mahatma Gandhi firmly believed in productive and

creative aspects of education and hence introduced the concept of teaching various skills such as stitching, carpentry etc. He used to call it MOOLODYOG, which means education & training of basic or fundamental industry.



Fig. 6.3: In thousands of restaurants helpless children clean the vessels and sweep the floor, because they do not have the alternative of earning and learning, through productive education

e) Emphasizes on recall and hence rote learning thereby denying free inquiry, reading, questioning etc.

In short, present day education system harnesses arrogance coupled with lack of confidence leaving all the domains viz. cognitive, psychomotor and affective, defective, deficient and underdeveloped. Further, when this education fails to give a job, it tends to create vindictive attitude transforming an individual into a criminal or develops frustration and transforms an individual into a mental wreck. Besides these fundamental stressors present in the education system, other intellectual stressors include **examinations with irrelevant parameters or criteria of evaluation (besides being unfair in many instances), competitions where the manipulative skills, callousness, selfishness are given more respect, lack of encouragement to study various religious and philosophical texts leading to intolerance, pettiness and conceptual crisis, information explosion either causing enormous and unnecessary burden on memory or inferiority complex, lack of easy accessibility to**

sources of information thereby crushing the curiosity, pressure of interviews causing constant tension and sense of inadequacy, protracted hours of homework in schools denying the students their legitimate right to enjoy their childhood, irrelevant and unnecessary information loading in didactic lectures leading to desiccation of interest and enthusiasm amongst the students, outdated practical and demonstration classes, lack of academic communication, lack of exchange of ideas, lack of discussions, lack of dialogue, lack of interdisciplinary dialogue, imposition of policies from above, irrelevant curricula etc

Other **intellectual stressors** include, propaganda which attempts to inculcate values which leads to ideological confusion, the scams in various fields which lead to development of value crisis and frustration in straight forward and honest individuals.

It must be appreciated that some institutions and individuals are making illustrious efforts in this direction but at the government level there does not seem to be any progress in this direction.



Fig. 6.4: Educated unemployed youngsters may develop vengeance because of unemployment and may resort to criminal activities

F) STRESS IN URBAN AREAS

In urban areas there are some advantages. The water supply, medical facilities, educational facilities, transport facilities etc. are better though not quite satisfactory. But apart from these advantages, almost all the other stressors such as physical, chemical, biological, sensory, instinctual, emotional and intellectual are intensified in urban areas. More over there are many more additional



Fig. 6.5: In many instances deserving candidates do not get job or get only temporary or part time job. This can lead to inferiority complex, depression, asocial behaviour and in many instances suicidal tendencies

stressors such as new physical, chemical & biological & sensory stressors, new instinctual stressors, new emotional stressors & new intellectual stressors, which

characterize urban life. These include:

Family

Highly individualistic thinking, and undue consideration to and excessive craze for amassing quick money, social status, popularity, glamour and glitter, political power (which is nurtured by electronic media) and the resultant behavior tear apart, the human bonds amongst the family members.

Social

Lack of or severe reduction in social cohesiveness (which characterizes the rural life), increasing social evils such as cheating, adulteration, excessive pace of life, commuting and the problems therein etc.

Cultural

Alienation of the culture, social norms, conventions etc.

Occupational

Harassment by the superiors, odd/protracted hours of work, lack of job satisfaction, lack of appreciation, lack of recognition, bad working environment such as lack of light, lack of fresh air, lack of promotions, excessive responsibilities without commensurate powers, inappropriate and over demanding deadlines, lack of accountability, discrimination, nepotism, corruption, lack of pay revision commensurate with the inflation, price rise

etc.

Religious

Religious fanaticism, politicization of religion, criminalization of religion etc. cause extreme stress in the forms of religious tension and riots.

Marital

All the problems of marriage are multiplied due to lack of support systems, nuclear family, increased wants due to creation of artificial needs and demands, individualistic thinking, careerism and so on.

Thus there is an increase in harassment by spouses, dowry problems, problems of working wives, problems of working mothers, problems related to lack of is sue etc. Marital problems multiply due to suspicion by jealous husbands, lack of protection to women & girls when working hours are odd, gender discrimination at working place, etc.

Economic

Insecurity due to increasing prices, lack of housing, increasing discrepancy between needs, wants, artificially created demands and the availability, exploitation, cheating, harassment by the taxation, robbery, murder, especially of elders, business failures etc.

Environmental

Environmental problems are also magnified. Changing ecosystems, decreasing greenery, expanding asphalt, basalt, cement, granite and concrete jungles, increase in background noise, glaring lights, vibrations, radiations, increasing chemical pollution, vehicular exhaust etc., are all increasing much more than the same in villages.

Family

Disease, disablement, handicap, addiction, death of a member of a family or discord amongst the family members, loneliness, unwantedness etc. become much more unmanageable because of lack or inadequacy of

manpower and lack of social cohesiveness.

Physical

Pain, disease, poor self image due to obesity, dwarfism, disfigurement, handicap, aging etc. start troubling more because of reduction in sources of solace.

Academic

Failures, inability to pursue a particular career etc. become worse due to peer pressure. In fact there is a kind of neurotic obsession about academic success. This drains the academically “not so good “ children of their confidence and makes them feel lowly. This is really unhealthy.

Even if one or more of these factors are not actually present there can be fear, many times artificially created by media & advertising of these and it can be far more stressful in urban competitive environment!

NEW AND COMPLEX PHYSICAL AND CHEMICAL STRESSORS IN URBAN AREAS.

We must appreciate that with urbanization, there is an addition of the physical, chemical and biological stressors also.

Thus there is excessive stimulation of all the sensations such as vision, smell, taste, hearing, touch, pressure, vibrations, pain etc. This is because of the new physical and chemical stressors which include excessive commuting, crowding, vibrations, noise (excessively and deafeningly loud pop music played with loud speakers), glittering & flickering lights (which keep shining and glowing throughout day and night), electrical /electrostatic strong fields, radiations due to various articles containing radioactive materials or computer and colour TV screens, chemical pollution due to exhaust of vehicles, mills, factories, excreta, strange and rapidly mixing frames with aggressive and loud advertising on T.V., reading, new carcinogens, (cancer promoting chemicals), infectious infections, dirty smells, lack of open space, lack of fresh air, lack of breeze, lack of sunlight and enclosure in

airconditioned spaces.

NEW AND COMPLEX INSTINCTUAL STRESSORS IN URBAN AREAS

Overexposure to glorified display of brazen and crude sexuality, indiscriminate violence, perverted eating and drinking, perverted struggles, conspiracies, manipulations for material success, perverted parental behavior, petty selfish achievements etc. causing undue stress on instincts.

Child in crèche, KG, schools, boarding schools etc. develops insecurity. Lack of enough privacy due to small houses and crowding disturbs sexual life and causes stress. Similarly, inability to breast feed causes stress on parental instincts. Violence in the form of murders, mass killings, hijacking, terrorism insurgency etc. have brought stress on survival instincts in cities as well as villages.

THERE ARE NEW AND COMPLEX EMOTIONAL STRESSORS IN URBAN AREAS

Atmosphere of highly competitive life (rat race) makes the individual excessively concerned, worried, anxious, about petty success or failure and nothing else. This nurtures petty selfishness and consequently erodes the interpersonal bonds. Either, one tends to get worked up, harasses the children for petty success, compels the spouse to work extra or may develop suspicion about working spouse and their vulnerability etc. All these can bring about emotional stress.

NEW AND COMPLEX INTELLECTUAL STRESSORS IN URBAN AREAS

High tech life style, “one up man ship”, act as stressors. Knowledge of diseases increases the fear and apprehension about the diseases, such as acquired immune deficiency syndrome (AIDS), cancer, diabetes, etc. and increase stress.

G) STRESS IN EXTRAORDINARY CIRCUMSTANCES

In addition to all the variety of stressors, socially concerned

individuals have to face extraordinary circumstances, which act as additional stressors. Some of these are as follows.

Jail

The jail can cause extraordinary stress due to its very nature of depriving one of his or her freedom, besides other inconveniences and isolation.

Underground stay

This is always associated with the anxiety of getting caught by the police, besides other hardships.

Defamation

It is said in the first chapter of Geeta that a gentleman prefers even death to public defamation.

Political harassment of a person or his/her relatives and family members:

It is a common observation that different political groups resort to harassment of the rival groups, parties and individuals.

Suffering of children, spouse, parents etc:

A sensitive individual who dedicates his/her life for a particular social cause, such as national freedom, education of women, annihilation of exploitation in various forms, is additionally stressed with the plight of his own children caused as a result of his or her sacrifice.

These stressors bring about almost unmanageable stress. This is one of the reasons why socially committed individuals with excellent dreams are many times seen frustrated and ruined. It is essential for us to appreciate this nature of stress especially because that would help us to overcome our hysterical petulant, carping, nagging and grumbling nature and enable us to help these individuals in helping themselves and the society.

Even if he/she is not imprisoned, a socially concerned individual gets involved physically, instinctually, emotionally, intellectually, economically and almost in every possible way in the problems of millions of people

in the world, (In addition to the problems of his or her own family members, relatives, friends etc.). This makes the stress far more severe than that faced by common people.

You can find many more stressors which the socially concerned individuals suffer from.

7. WHAT IS THE NATURE AND IMPORTANCE OF SUPPORT SYSTEMS ?

1) Development of related different issues in even the most primitive of the societies, led to development of support systems, in the form of guidance from the seniormost person as well as conventions, traditions, rules, etc. In addition, the small size of the communities gave it a cohesive nature and this made it easy for the members of the tribe/community to derive from the other members of the tribe, the solace as well as the strength to overcome a variety of stresses,

2) The questions became complex with development of the society. This led to the development of support systems in the form of various religious precepts and instructions.

In general these precepts brought some restriction on the behavior of the individuals (acting as stressors) on the one hand and simultaneously ensuring the harmony in the society (thereby reducing a number of possible stressors).

In Hindu culture these solutions assumed the form of SMRUTIS. These are scriptures. Smruti means memory or remembrance. These were compiled with the purpose of guiding all the people in society ranging from a worker to a king. The guidance was aimed at harmony, integrity as well as prosperity at all levels in society. The practical guidance in SMRUTIS is supposed to facilitate emancipation of even a common man who does not understand philosophical texts.

The guidance in SMRUTIS seems to have evolved through discussions and consensus amongst learned men in response to historical, geographic, physical, enviromental, social, and political compulsions & limitations of scientific & technological development.

Presently almost no Hindu follows the guidance of SMRUTIS. But from academic point of view it must be pointed out that though some elements attribute malafied intentions to these SMRUTIS so as to perpetuate hatred and reap political advantage, it is totally wrong. It is true that SMRUTIS do not advocate equality. But they do not intend to advocate discrimination, injustice, inequality and exploitation. They aim to advocate harmonious, non competitive, orderly functioning of society for which each one should do his or her job (whether considered lower or higher). The guidance in SMRUTIS is outdated. But the intentions must be studied and appraised dispassionately & objectively withouts any kind of ulterior motive. Thus there are a number of SMRUTIS named after Vasishtha, Narada, Parashara, Yadnyavalkya, Yajnavalkya Manu etc. Later the SMRUTIS were interpreted in the form of books such as Nirnayasindhu, Dharmasindhu etc. These books provided solutions to a number of questions and served as buffers in the society for long time. It is interesting to note that these scriptures provided guidance in terms of daily personal conduct for, a) various age groups, b) males and females from the time of waking up to the time of going to bed, c) the role of father, mother, wife, in laws, neighbors, employer, employee and so on and ensured good physical, instinctual, emotional and intellectual health of an individual and the society. In general, the innate divinity in the individual was intended to be nurtured. The beast in the individual was aimed to be contained. The selfish motive was indeed contained and social benefit was ensured. This resulted into a pattern of behavior right from morning to night and throughout life through different stages of life, throughout the year and that behaviour which relates an individual to his / her family and society.

Questions with respect to selection of jobs, choice of bride and bridegroom, choice of time (auspicious day) for sowing, marrying, for ceremony of sacred thread, various festivals, celebrations, pilgrimages, fairs etc were also

answered in these books.

For various professionals, starting from a manual laborer to the king, one finds guidance in these books. Guidance about taming and domesticating different birds and animals, eating different articles on different occasions, cooking on different occasions, using of different beds and so many such things ensured tremendous buffer system, support system.

The pilgrimages served to bring people together and purge their minds of petty considerations, personal griefs, pains, frustrations etc. The compulsory observance of celebrations ensured prevention of depression and also nurtured social cohesiveness.

In the interiors of India the support systems took the form of pravachankar, puranik, kirtankar, astrologer, vaidya etc.

Pravachankar is one who explains the philosophical principles in simpler works.

Kirtankar is one who also explains philosophical principles but through more entertaining form of songs, dance, stories etc.

The puranik is a person who actually reads the puranas. [The scriptures which describe creation of universe, dynasties, traditions, customs conventions, codes of conduct etc. Many of these give information about gems, astrology etc.]

Vaidya means a family physician & surgeon.

In addition, the support systems included the members of the joint families, elderly relatives, friends and neighbors.

In villages, therefore, one finds a reasonable (though rapidly dwindling) balance between stressors and support systems.

This is true inspite of the fact that the feudal system and the SMRUTIS deteriorated in every way as a result of several factors and had damaging effects also. The traditions

such as shaving the head of a widow, SATI, the custom of outcasting, the custom of untouchability etc, acted as stressors and caused extreme economic, social, personal, sexual, cultural and almost every kind of exploitation of a large majority of people and became coercive (FULL OF STRESSORS) in several possible ways.

But in the course of time and due to multiple factors, the influence of SMRUTIS almost vanished from life and where it remained it assumed a form of personal pursuit of salvation, nirvana etc. This led to lack of answers to several questions.

The questions regarding care of pregnant mothers, various rituals related to the period of gestation, care of delivered mother, care of newborn, various festivals, selection of careers, jobs, role of father, mother, wife, son, daughter, uncles, grand parents, neighbors assumed a menacing form as a result of dwindling of THE “OLD” SUPPORT SYSTEMS AND ALSO THE ANSWERS AND SOLUTIONS BECOMING REDUNDANT AND OUTDATED.

Our life is characterized by loss of old religious, traditional, cultural and social precepts, values, ways of life and conventions and lack of day to day intellectual support systems in the form of PRAVACHANKAR, PURANIK, KIRTANKAR, ASTROLOGER, VAIDYA, SCRIPTURES, ELDERLY RELATIVES, FRIENDS, NEIGHBOURS etc.

Thus present state of life brings about drastic stress by intensifying and complicating stressors and increasing the frequency (rapid repetition) and number of stressors and simultaneously robbing one of the emotional and intellectual support systems.

The modern life, in general, is associated with a new value system of conditioning an individual. Thus petty selfishness, superficial glamour and quick prosperity of an individual (whichever may be the means to achieve them) become virtues and are adored in society. Moreover this leads to either self aggrandizement or self pity. This leads to either sense of guilt or sense of arrogance. This

state of affairs has necessitated the emergence of new, scientifically sound & philosophically profound support systems, appropriate & effective in present society all over the world.

8. WHAT IS THE MECHANISM OF STRESS?

You may not fully understand the mechanism of stress if you are not a medical person but do not worry about it. You can still manage stress if you understand and practice the ways described for total stress management (TSM).

In variance with Hans Selye who thought that stress was merely a physiological phenomenon, now a days it is recognized that various psychological stimuli can produce all the three features of general adaption syndrome GAS viz. enlargement of adrenal cortex, atrophy of thymus, spleen, and lymphoid tissue, and ulcers in the stomach and the duodenum, besides producing the effects described earlier.

Various stressors are basically stimuli and hence they stimulate various internal and external neural receptors and/or molecular receptors as in case of immune system and produce changes either in the nervous system or in the blood.

When they enter nervous system, they cause secretion of a variety of neurotransmitters, which are chemical substances acting on the various parts of brain. This then is followed by physical response, autonomic nervous response such as increase in heart rate, endocrine response which may include increase or decrease in secretion of a particular hormone or hormones, or a metabolic response which may be associated with increase in release of glucose from the liver into the blood, increase in the heat production in the body etc.

There are four main and well known mechanisms by which stress and its effects are produced. These are briefly described below.

a) Effect of various stressors on the brain leads to secretion

of various neurotransmitters, which are released into a small centrally and ventrally located funnel like part of brain called hypothalamus. It is called hypothalamus because it is underlying the thalamus. The hypothalamus in turn secretes hormones, which are carried to the pituitary gland which is underneath the hypothalamus. The pituitary in turn secretes hormones which are released in the blood and reach the various glands but especially the adrenal gland. Adrenal gland or suprarenal gland, which is located on the top of the kidneys, has two parts, the outer adrenal cortex and the inner core called adrenal medulla. Adrenal cortex secretes cortisol, which is responsible for various effects of stress as described below.

b) Stressors can act on the pineal gland which is located in central ventral region but it is placed superiorly and is conical in shape hence called pineal. Because of stressors the proportion, the quantity

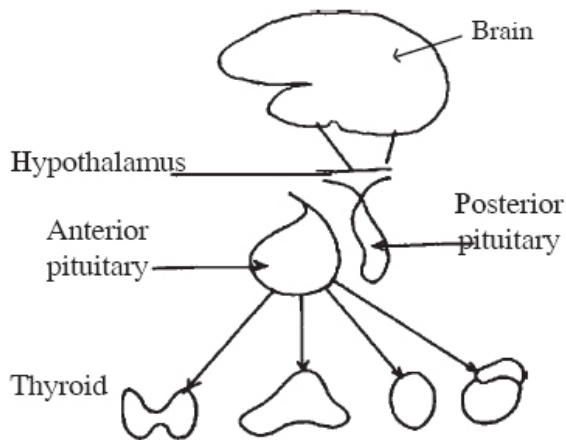


Fig. 8.1: Hypothalamus, pituitary adrenal axis

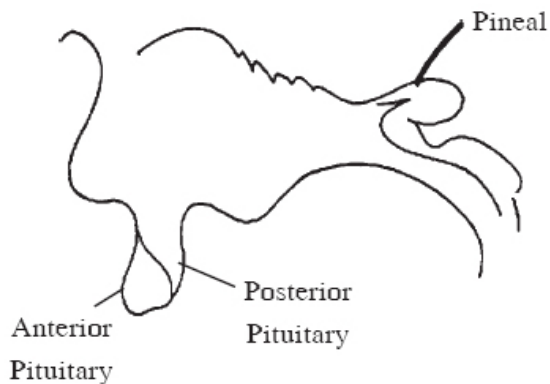


Fig. 8.2: Pineal gland

and the type of secretions can become abnormal and this can cause several ill effects on body.

c) Stressors can be stimuli in the form of certain changes in blood, bacteria in blood, certain chemicals called antigens in the blood etc. All these act on the different types of white blood cells (WBC), which are also called leukocytes. The WBCs, in turn produce several substances which cause the effect of stress.

d) The stressors can cause effect on the hypothalamus as mentioned earlier but the secretions of hypothalamus can directly enter the blood and produce the effects of stress by direct action of hypothalamic secretions on various tissues.

Let us consider these mechanisms in some more detail.

A) HYPOTHALAMUS – PITUITARY – ADRENAL AXIS (Limbic - hypothalamic -pituitary - adrenal axis or stress axis)

As explained earlier, this implies influence of the stressors on central nervous system(CNS). Through CNS they influence the hypothalamus which is a neuroendocrine organ and cause secretion of corticotrophin releasing factor(CRF) from hypothalamus. The CRF from hypothalamus stimulates the locus ceruleus which is a site of sympathetic nervous system. Stimulation of hypothalamus also increases certain secretions from anterior and posterior pituitary glands which in turn stimulate adrenal cortex and cause increase in cortisol secretion which causes the effects of stress on various tissues mentioned later.

The hormones secreted at different sites are as follows.

A) Anterior pituitary:

ACTH

Growth Hormone

Prolactin

Endorphins

Leucine enkephalin and methionine enkephalin.

B) Posterior pituitary :

ADH (VASOPRESSIN)

C) Sympathetic nervous system:

Locus ceruleus : Norepinephrine(NE) is produced at the postganglionic nerve terminals and epinephrine is produced in the adrenal medulla.

Now let us see the effects of various hormones secreted by the anterior pituitary.

One of the hormones secreted by anterior pituitary is adrenocorticotrophic hormone (ACTH), which stimulates and increases the secretion of a hormone cortisol from the adrenal cortex.

Cortisol causes :

1) Inhibition of hormone secreted by anterior pituitary called leutinizing hormone. This is a hormone important in regulation of reproductive hormones. Thus cortisol, by its action on LH, reduces the production of testosterone in males and estradiol in females. The LH is important in formation and release of ovum (ovulation) which is essential for female fertility. Hence stress & excess of cortisol can cause sterility.

2) Abnormally increased deposition of fat in the region of face and trunk

3) Lipolysis, or dissolution or removal of fat from the region of extremities thus making fatty acids available for neoglucogenesis. (Formation of glucose from amino acids (proteins) and fatty acids (fats)). If this is increased beyond normal limits, then it can cause persistent high blood glucose level resulting into diabetes mellitus. Diabetes = Running through and Mellitus = Sweet. Interestingly it is called Madhumeha - Madhu = sweet & MEHA = almost same as running through) !

4) Decrease in protein synthesis

5) Atrophy of lymphoid tissue. Lymphoid tissue is concerned with the resistance against foreign proteins called antigens(immunity).

6) Decrease in production of proteins required in immunity called immunoglobulins.

7) Decrease in eosinophils, which are important in defence against parasites.

8) Decrease in macrophages and lymphocytes which are important in defence against diseases through phagocytosis (engulfing and digesting the disease agent) and the cellular and humoral immunity, respectively. Cellular immunity involves actual participation of cell and humoral immunity involves participation of antibodies produced by cells.

This increases susceptibility to infections which cause various infective as well as allergic diseases such as common cold, tuberculosis (TB), *Helicobacter pylori* etc.

9) Decrease in the interleukin1 and interleukin2, which are important for proper functioning of the B lymphocytes, which produce antibodies that neutralize harmful foreign proteins called antigens.

Thus there is reduction in the production of antibodies (immunoglobulins)

10) Stimulation of suppressor cells and promotes cell death. Normally there is a balance between three types of lymphocyte viz cytotoxic or killer cells, helper cells and suppressor cells. If suppressor cells increase in proportion, then the immunity decreases.

11) Reduces the inflammatory response and wound healing.

12) Decrease in the release of kinins, prostaglandins, and histamine from leucocytes. These are all important for the healthy functioning of various tissues.

Antigen acts on macrophage which normally releases interleukin I, which activates T and B lymphocytes which are important in direct attack on the inflicting material (cellular immunity) and neutralization of the inflicting material [antigen] through antibody production (humoral immunity) respectively.

When the antigen are in excess it is a condition of stress and associated with increase in cortisol through hypothalamo – pituitary - adrenal axis stimulation which reduces the following functions of macrophage.

Macrophage produces tumor necrosis factor (TNF) which is important in detecting abnormal cells such as cancer cells and killing them and migration inhibitory factor (MIF) which is important to prevent the migration of monocytes and macrophages from site of injury.

Both are suppressed by cortisol.

T cells, which are activated by macrophages, produce

a) interleukin2 which

1) activates cytotoxic lymphocyte (blocked by cortisol)

2) has autocrine effect. (Effect of the secretion of the cell on itself is called autocrine effect) on T cell i.e. it self(blocked by cortisol)

3) activates B cells which on antigenic stimulation mature into plasma cells and produce antibodies

b) Granulocyte and monocyte colony stimulation factor (GM-CSF). Thus stem cells are formed.

c) Interleukin 3,4,5 and 6. These stimulate plasma cells

d) Gamma interferon which increases the processing of antigen by macrophage.

Cortisol when secreted in excess as in the condition of stress, suppresses all these four functions of activated T cells. Cortisol also causes protein catabolism, i.e. increase in the breakdown of proteins. This causes weakness and wasting of muscles.

It causes atrophy of lymphoid tissue, adipose tissue, skin and bones (osteoporosis) and causes increase in blood aminoacid level.

Cortisol also acts on liver

Increased gluconeogenesis (permissive action with catecholamines. In simple words permissive action is

facilitatory effect of cortisol on the other hormone.

Catecholamines are secretions of adrenal medulla. These are epinephrine and norepinephrine) thus increasing blood glucose level. It stimulates the synthesis of proteins in liver and increase gastric secretion which may cause increase in acidity and ulcerations in stomach.

Cortisol acts on cardiovascular system

It increases the cardiac output and blood pressure (BP) (permissive with catecholamines)

In stress, there is increase in secretion of aldosterone. Aldosterone is a hormone secreted by zona glomerulosa layer of adrenal cortex.

Aldosterone increases sodium (Na^+) and water retention. This contributes to development of high blood pressure.

Posterior pituitary

It appears that due to stress there is increase in the secretion of oxytocin which can cause precipitate labor as is seen in animals as a result of acute stress.

The posterior pituitary secretes increased quantity of antidiuretic hormone (ADH) which is also called vasopressin and increases water retention.

ACTION OF HYPOTHALAMUS ON THE SYMPATHETIC SYSTEM PRESENT IN LOCUS CERULEUS

Due to increase in secretion of norepinephrine and epinephrine following effects are observed.

- a) Decrease in degradation of cholesterol to bile acids hence rise in cholesterol.
- b) Catecholamines cause reduction in insulin by beta 1 adrenergic receptor stimulation. In addition, they increase glucagon secretion causing decreased glucose uptake in muscles and peripheral tissues. So blood glucose level increases.
- c) Increase in lipolysis of triglycerides causing increase in free fatty acids in blood.
- d) Increase in force of cardiac contraction and increase in Cardiac Output.

e) Liver: increased gluconeogenesis and glycogenolysis and decrease in glycogenesis thus causing increase in blood sugar level (BSL). (Glycogen is a big molecule formed of many glucose molecules linked together. Therefore breakdown of glycogen [Glycogenolysis] results in increased production of glucose in liver and its release in blood causing high blood glucose level. Conversely Glycogenesis i.e. formation of glycogen from glucose molecules leads to reduction in blood glucose level).

f) Dilation of bronchial airways. Trachea, bronchi and bronchioles constitute the air passages i.e. airways, through which air reaches the air packets (alveoli) of lungs.

g) Dilation of skeletal muscle vasculature,

h) Postganglionic sympathetic secretion of Norepinephrine, (Ganglion means collection of cells. The cells present in sympathetic ganglia are part of autonomic nervous system. These cells supply through their fibers different organs such as heart, stomach, intestine etc. Their secretions are released around the cells of these organs and that is how the function of these organs is influenced. These secretions are called postganglionic secretions).

i) Suppression of Immune system,

j) Vasoconstriction and increase in Blood Pressure,

k) P u p i l dilation, (Illustration of an excited face with pupils dilated).

l) Fall in gastric secretion,

m) Reduction in the protein synthesis and reduction in the uptake of glucose by the muscles and thus reduces the

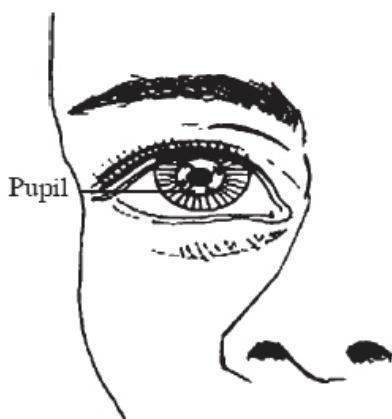


Fig. 8.3: Illustration dilated pupil

strength of the muscle,

- n) Increase in the urine output,
- o) Stimulation of the CNS and sense of wellbeing.

B) THROUGH PINEAL GLAND

As stated earlier, the stressors can act on the pineal gland which is present in central ventral region but placed superiorly and is conical in shape hence called pineal. Because of stressors the proportion, the quantity and the type of secretions can become abnormal and this can cause following ill effects on body.

- 1) Abnormality of hypothalamic and pituitary function, including the abnormality of the regulation of reproductive function.
- 2) Abnormality of thyroid, adrenal cortex, pancreas and parathyroid.
- 3) Disturbance of biorhythms.
- 4) Disturbances of sleep
- 5) Reduction in resistance to cancer.
- 6) The pineal gland secretes melatonin which is viewed as a physiological antistressor and hence pineal disturbance would make the individual more vulnerable to stressors and get stressed easily.
- 7) Immune system is affected adversely.

C) STRESS RESULTING FROM STIMULI ARISING IN TISSUES,

The infection, trauma, antigen, blood loss, chemical trauma etc. act as stressors.

For example, antigen acts on macrophage which normally releases interleukin I, which activates T and B lymphocytes which are important in direct

attack on the inflicting material (cellular immunity) and neutralization of the inflicting material (antigen) through antibody production (humoral immunity) respectively.

When the antigens are in excess it is a condition of

stress and associated with increase in cortisol through hypothalamo – pituitary - adrenal axis stimulation which reduces this function of macrophage

D) DIRECT EFFECT OF HYPOTHALAMIC HORMONES

The CRF (*CRF = Corticotropin Releasing Factor also Called CRH i.e. Corticotropin Releasing Hormone which is secreted by hypothalamus*), ENDORPHIN (*Endorphin = Endogenous morphine like substance*), GH (*GH = Growth Hormone secreted by anterior pituitary*), ACTH (*ACTH = Adreno Cortico Tropic Hormone secreted by anterior pituitary gland*), T4 (*T4 = Thyroxine secreted by thyroid gland*) all have receptors on the immune cells and directly influence the immune response also.

9. MANAGEMENT OF STRESS

How to begin the management of stress ?

What is the next step ?

Why is it said that if a person is not keen, makes only superficial inquiry and does not pay for the advice, does not get results ?

Is it useful to inform others about TSM course ?

What is the relevance of philosopher's stone in stress management ?

What has stress management to do with the story of the priest and the pig ?

Can we understand the concept of TSM by the analogy of diver, Gravity, Degeneration and entropy?

How to explore the power or source of life and power within you ?

How to manage physical/Chemical, new physical/ chemical and biological /new biological stressors ?

How to manage sensory and new sensory stressors ? How to manage instinctual stressors ?

How to manage the emotional stressors ?

How to manage new/complex instinctual stressors ? How to manage new/complex emotional stressors ? How to manage new/complex intellectual stressors ?

How to manage stress that results due to extraordinary circumstances which are faced by socially concerned individuals ?

HOW TO BEGIN THE MANAGEMENT OF STRESS ?

You have to begin TSM by UNDERSTANDING THE CONCEPT OF STRESS because IT IS ACTUALLY A



Fig. 9.1: Properly Managed & Mismanaged Stress

PART OF TSM, WHICH INVOLVES EFFORTS TO IMPROVE COGNITION, AFFECT AND CONATION. HENCE Please read chapter one to eight, carefully even if you have read them once. Please try to appreciate the enormous stressors in our life and the paucity or frail nature of the homeostatic mechanisms in our bodies, which are not in any way better than those in the animals, who in comparison have very few stressors.

Please refer Chapter No. 1 on introduction to stress pages 1-7. Remind yourself of the analogy of TSM and enjoying horse ride.

Having a proper grasp is like establishing your control over the horse. This is the first, foremost essential and important step for enjoying horse ride. Rest of the things are relatively simple.

WHAT IS THE NEXT STEP?

IT MUST BE APPRECIATED THAT THE AWARENESS OF ONE'S NEED OF TSM IS HEALTHY. LACK OF SUCH AWARENESS INDICATES IGNORANCE AND IN MOST CASES DEHUMANIZATION. THIS IS BECAUSE:

If a person has already become callous and indifferent to others' needs because of petty pursuits, then he may not feel the need of TSM. Similarly if he has acquired economic, social, political and other gains through unfair means, has become arrogant and proud about it, then also

he may not feel the need of TSM. A person in such a state may be boastful and arrogant. He may have contempt for others on one hand and pride about his pretty gains on the other. But these things are symptoms of petty, mean & diseased personality.

This state is similar to alcoholic euphoria in which the person feels that he is on top of the world and does not feel the need of TSM when actually he needs it most.

This is similar to a mental disorder when the individual does not feel the need to eat even when his body very much needs it !

Lastly this state can be compared to a condition called anasarca, in which the whole body is swollen. An ignorant person may not realise that it is a state of disease and needs treatment for it !

Alternatively if a person has got frustrated through repeated failures to acquire material gains and developed hopelessness, depression, listlessness, indolence, narrowness, apathy, indifference, then also it is indicative of a diseased state of mind. This state is akin to STARVATION. As a result of prolonged starvation the individual becomes so much weak that he/she does not feel the need of food or even water. Therefore, the lack of perception of need of TSM due to failures & frustration is also indicative of sickness & not health!

WHY IS IT SAID THAT IF A PERSON IS NOT KEEN, MAKES ONLY SUPERFICIAL INQUIRY AND DOES NOT PAY FOR THE ADVICE, THEN, HE / SHE DOES NOT GET RESULTS?

TSM is not possible through superficial inquiry. One must be honest and frank.

Being superficial and casual in approach and not open is like not taking medicines (not participating), concealing the wounds in bandage (not being frank) and not paying (not getting involved and committed) and yet expecting relief from the doctor.

Just as you can not expect a doctor to heal you, without

eating the medicines, he gave you and by applying the ointment on the bandage and that also free of cost, exactly in the same way a person with, lack of involvement lack of frankness and commitment indicated by lack of practice of the concepts sincerely, lack of adequate dialogue & refusal to pay the fee in time can not expect optimal results from TSM.

IS IT USEFUL TO INFORM OTHERS ABOUT TSM COURSE ?

YES. If you are convinced that TSM course is a socially useful activity and if it has definitely helped you, then inform others. This would give you maximum benefit. But one should not coax others to join TSM course. This is because, such reluctant participation in general, is not likely to help or benefit any body.



Fig. 9.2: Superficial inquiry is like applying ointment on bandage. It would not give optimal result.

WHAT IS THE RELEVANCE OF PHILOSOPHER'S STONE IN TSM?

Philosopher's stone converts anything that comes in its contact, into gold.

TSM expert can help himself, as well as others to overcome stress and rectify various adverse effects of stress. He/she experiences and imparts freedom, strength, joy and

dynamism and continuing fulfillment in every respect.

A TSM expert not only helps & empowers the stressed person to manage stress but actually “Converts” the stressed person into another TSM expert ! A TSM expert therefore is a superior kind of “philosopher’s stone”, which converts everything (every person) into not gold but into another philosopher’s stone.

WHAT HAS TSM TO DO WITH THE STORY OF THE PRIEST AND THE PIG?

The story :

Once upon a time there was a priest. He knew astrology very well and hence came to know about the time and date of his death and also about the fact that he was to be born as a pig in the next life. The only way to get rid of the life of a pig was to get killed by his son.

He talked about this fact to his son who after some hesitation agreed to kill his father after he would be reborn as a pig.

The priest died in the course of time and was reborn as a pig.

As per mutual understanding between him and his son, he(now a pig) came to the specified spot at specific time on a particular day.

The son came there with sword to kill and liberate him from the life of a pig.

The son with that noble purpose raised his sword to kill his pig father but do and behold!

The pig shouted and urged his son not to kill him! The son was shocked and perplexed! He asked “why?”

The pig father says, “I have started liking this life!”

The moral of the story is:

You can get accustomed to damaging effects of stressors even if you are a very good person. This highlights the importance of recognizing the damaging influence of stressors and the need to save your self and others from them through TSM.

CAN WE UNDERSTAND THE CONCEPT OF TSM BY THE ANALOGY OF A DIVER, GRAVITY, DEGENERATION AND ENTROPY?

We as a part of universe are subject to gravity physically and metaphorically. There is always a tendency to sink.

We also have a tendency to undergo entropy. Entropy in simple words, means a process of disorganization of a system.

We are also having a tendency as a part of biological universe to degenerate.

TSM is a process of reversing these changes.

Analogy of a pearl and diver tells us that like a diver we must learn to dive in the ocean within us and come back to surface (with pearls!) so as to overcome above mentioned three processes. TSM gives us the ability to come out from the depths of degeneration and disorganization to which we might have sunk triumphantly and with pearls of wisdom and power!

HOW TO EXPLORE THE SOURCE OF LIFE AND POWER WITHIN YOU? *(Exploring the source of life and power within you is extremely important aspect of TSM.)*

PLEASE REMEMBER THAT SUCH EXPLORATION IS NOT POSSIBLE FOR ANIMALS. IT IS POSSIBLE FOR YOU. IT WILL HELP YOU TO OVERCOME STRESS.

WHAT YOU HAVE TO DO IS UNDERSTAND THAT DUE TO PETTINESS AND SUPERFICIALITY WE GET CONDITIONED AND SPLIT IN VARIOUS DUALITIES AND CUT OFF, FROM THE SOURCE OF POWER WITHIN. THEREFORE YOU HAVE TO LEARN TO ACCEPT, LOVE AND RESPECT, YOURSELF, UNCONDITIONALLY BY DAILY CONSCIOUS EFFORTS. YOU MAY TRY THE PRACTICE OF NAMASMARAN (**Namasmaran** : Nama means to remember. Namasmaran means remembering the name of God, Guru or some saint whom a person considers Almighty. Some people remember it silently, while some loudly. Some keep count while others do not. Some use rosary some do not. From psychological point of view namasmaran acts as an anchor for wayward thoughts, fluctuating emotions, and urges of passions, resulting because of getting conditioned to pettiness and

superficiality.), WHICH DOES NOT REQUIRE CONSCIOUS EFFORTS.

This is discussed further on page 169-170

Figure 9.3 illustrates the dualities and drag on mind in four directions.

Let us see now, the management of different types of stressors. which is essentially two fold a) what can be done to manage stressors at individual level and b) what can be done at sociopolitical or government level. This is helped to help many of you working in very high positions and might not have realized what can be done from that position to help yourself as well as the society.

These efforts would essentially involve improvement in cognition (perception), affect(inner reponse) and conation (behavior).

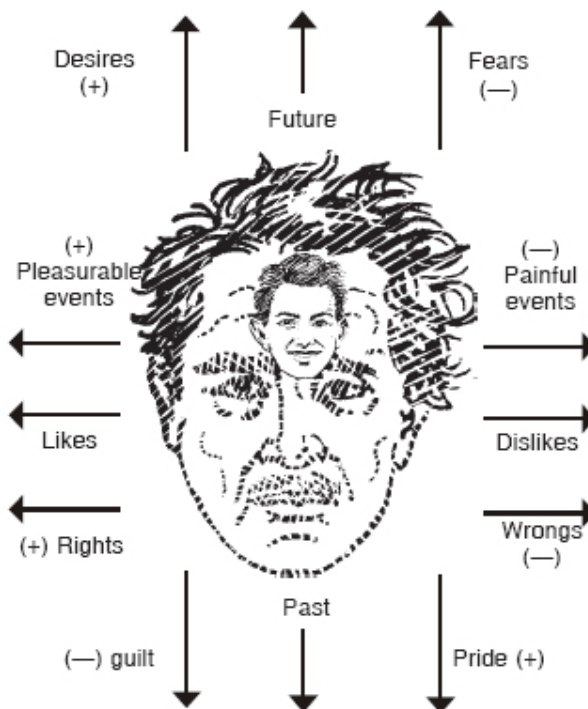


Fig. 9.3: Material successses lead to pride (akin o edema = disease) and repeated material failures lead to frustration (akin to starvation = helplessness)

HOW TO MANAGE DIFFERENT TYPES OF PHYSICAL, CHEMICAL & BIOLOGICAL STRESSORS?

At individual level

Cognition

Study the stressors and their effects on body, mind and performance. This may not be possible for everybody but applies to persons involved in the study, research, policy making and, administration, in the field of interaction between man and his physical, chemical and biological environment. Understanding the importance of different influences of environment on us is important and very useful.

Instinctive appreciation of environment gives bodily pleasure in the form of sense well being in response to good environment and in turn stimulates you to improve the environment.

Affect

Intellectual involvement leads to, love and concern for the environment protection.

Conation

Understanding the importance of environment develops concern & love for environment and we are inspired to do something about it. This involves different activities and can be done efficiently by different people. For example, education of the government and public, in formal and non-formal way about environment friendly policies and their implementation. This can be done by experts. Administrative efforts, to implement appropriate policies and plans, can be carried out by concerned individuals. Motivation of the students, government and every body concerned through a variety of ways such as poetry, cultural programs, cartoons etc. can be done by poets, writers, painters, singers, actors, photographers and other creative artists. Bodily response in tune with the above mentioned activities imply that youngsters, students and others who are untrained can actually participate in physical work involved in above efforts as

well as actual environment protection eg. planting new trees. Some simple instructions with respect to how you can overcome physical, chemical and biological stressors are as follow. These steps are important, for personal, physical and mental health, but the foregoing is more important in TSM.

In summer or hot working conditions

Use light and cotton clothes.

Drink plenty of water and fruit juices. Wash your face frequently.

In case of humid environment there is increase in perspiration and this necessitates salt replacement. Usually fruits and fruit juices can take care of this.

In humid and warm climate as in case of Mumbai, cold bath in morning is extremely refreshing. One gets new vigor. In the evening, at the fag end of the day when the muscles, joints, eyes and in general all the systems are tired, it is very useful to take warm bath. It is relaxing and helps in getting quick and sound sleep.

Bath improves blood circulation to all the different parts of body. This is useful in alleviating soreness in muscles and joints.

Use of fans:

Constant unidirectional stimulation of the body by ceiling fan can cause increase stiffness of muscles and joints and in some cases causes common cold. This is especially true with high speed fans.

Avoid fan if and when possible and use low or medium speed when fan is unavoidable.

If there is rotating revolving fan then it is less likely to cause muscle or joint stiffness.

Use of air conditioner:

There seems to be a clear correlation between use of air conditioner and increased frequency and severity of upper respiratory and sinus infections. This could be due to exposure to cold, as well as increased chances of

infection due to lack of ventilation. Therefore, when-ever possible avoid air conditioner. Avail, for yourself fresh air, as frequently as is possible and feasible. If you consider the extreme vehicular pollution you may find AC car very much comforting. Similarly when the climate is too hot AC rooms are comforting. But fresh and clean air is always better for health than AC.

In winter season

Use warm clothes.

Massage your head and body with suitable oil. This will reduce the chances of cracks on your feet and palms.

Use vaseline or similar material to cover your lips to prevent cracks on lip.

In case of dusty working environment:

Use a suitable mask. If feasible, sprinkle water around the house or the working environment.

Wherever there are sparks as in the case of working with are lamps:

Use proper protective device.

To prevent ill effects of vibrations, electrostatic fields, magnetic and electromagnetic fields, radiations etc, it is important to use mechanical, electrical, electronic and such other gadgets e.g. vacuum cleaner, vibrator, vehicle, mixer, mobile phone, wrist watches with radium dials, hair drier etc. in a moderate manner or as sparsely as possible. Excessive use of television, personal computer should also be avoided.

For excessive background noise level:

Use cotton plugs in the ears while sleeping if the noise level is high due to vicinity of railway track, railway station or airport.

To prevent bad effects of excessive light:

Use of electricity should be minimal not merely to save it for nation but also to avoid bad effects of excessive light. Moderate or dim light has calming effect. This is why top quality restaurants are not excessively illuminated.

To prevent effect of sun:

Use sun goggles, sunglasses, cap, hat etc.

To prevent or minimize effects of chemical stressors

- A) Stop smoking at least in public places.
- B) Avoid use of taxi, car etc. whenever it is possible. This is apparently an unimpressive measure. But it works. Using public transport as far as possible and walking for at least short distances is environment friendly and good for your own physical health as well !
- C) If you own a vehicle, then make sure that you get Pollution Under Control Test (PUC) done regularly. Remember that the pollution you cause is not only harmful to others but to your own near and dear ones also. Hence do not compromise with the quality of engine or quality of fuel at any cost. In short, take every possible step to reduce the exhaust/soot.
- D) Personal hygiene is very important. Brushing teeth, taking bath, changing clothes, underwears, socks etc. on a regular basis, are all important. They serve to reduce obnoxious odors to at least a certain extent.
- E) If you happen to be a factory or mill owner it is essential that you comply with the effluent and other pollutant management rules and regulations. Negligence in such matters is criminal. One may get an impression from the above suggestions that TSM is a reminder of laws ! But that is not the case. Suggestions are aimed at helping us rise above irresponsibility, pettiness, dirtiness and exploitative element which actually weaken and degrade us.
- F) Promote indoor and outdoor plantation to whatever extent it is possible for you. Plants, as we know, give us oxygen and consume carbon dioxide.

To prevent mosquito and microbial hazard

- A) Develop civic sense. If you are a pan or tobacco chewer, then please make it a point to avoid that at least in public places. Never spit pan or tobacco in public place.

This is important for three reasons.

First:

You are not merely spoiling the public place and making it obnoxious but you are actively helping the spread of infectious diseases.

Second:

By indulging in antisocial or socially harmful activity you are reducing yourselves in your own eyes and somewhere deep in your being it will keep on eroding yourself in the form of subconscious or conscious guilt.

Third:

By doing pan chewing and spitting it in public places you are definitely going to be blamed by millions and that in turn reduces yourself in your eyes even further. This is a kind of self indignation, which drains the nectar of life within you. This makes you feeble and stress prone. You should understand the importance of this and support bans on pan chewing, gutkha chewing and spitting in public places.

B) Never throw garbage in public places.

C) Minimize the use of plastic, which cannot be disintegrated or recycled.

D) Avoid and discourage wherever possible, defecation and urination in public places.

Make sure that you maintain cleanliness in public toilets and bathrooms.

E) Try and help in the cultivation of Neem and Tulsi trees.

F) Share with your friends and colleagues the understanding that you cannot fight the mosquito and microbial menace by mere use of mosquito curtains, mosquito repellents and antibiotics.

G) If you are a part of pollution control department, then implement the programs effectively.

H) If you are a journalist spend at least some of your time and energy for developing public awareness on

pollution and its prevention.

I) If you are a union leader, educate the employees about their duty towards improvement of environment in general and working environment in particular.

At Sociopolitical Level

The government has several experts to advise the government with respect to appropriate, accurate and effective policies, programs and the methods of implementation, so as to eradicate or at least curb the physical, chemical and biological stressors effectively.

I would just make a small note of tentative suggestions. You can give thought to these suggestions and you may be able to improve upon them as well as come out with many more brilliant suggestions depending on your expertise.

A) Smoking in public places should be prohibited and the prohibition should be implemented seriously and rigorously. A deterrent punishment for such seemingly petty crimes should be enforced.

B) Spitting, defecating, throwing litter on the road or other public places should be banned and dealt with severely.

C) Effective garbage, sewage and sullage management.

D) For implementing the above two it is essential to stop the congestion of cities. It can be done, mainly by promoting industrialization and job development in rural areas. Traditionally this is done by giving a subsidy. It has not worked and won't work effectively.

Instead, education system has to be transformed so as to embody a strong element of productivity, creativity, craftsmanship, plantation, agriculture etc. This would help in educating as well empowering the people for a dignified living and prevent their helpless exodus to cities.

E) Ban the advertisement of tobacco, alcohol and such other substances, in every possible form. The ban should

be rigorously implemented.

F) Improve public transport and promote use of environment friendly fuel such as compressed natural liquified petroleum gas such as LPG or ESSO gas.

G) Restrict the number of private vehicles by increasing road tax and other stringent measures.

H) Promote plantation especially of Neem and Tulsi, by various innovative means such as advertisements etc. In fact, this is being done, but to a very small extent.

HOW TO MANAGE DIFFERENT TYPES OF SENSORY STRESSORS?

In the course of evolution, there is a perceptible increase in the LEVEL OF CONSCIOUSNESS. Thus there is CONSCIOUS CONCOMITANT TO THE SENSATIONS (Visual, auditory, olfactory, gustatory, tactile, pain, temperature, itching, gravity, acceleration etc.).

SENSATIONS are useful for survival and health. But when they exceed in their intensity, number, duration, frequency and variety (complexity) they act as STRESSORS and cause adverse effects. We have considered many of these previously so we need not repeat them. But in case of human beings simple somatic and visceral sensations are usually associated with affect and conation. In other words, what we see, hear, smell or sense in any other way, is associated with our interpretation and our response. Hence we have to learn to interpret and respond to the sensations appropriately and overcome the possibility of stress.

At individual level

Cognition

Understanding the anecdote of MAHATMA GANDHI'S THREE MONKEYS which is hear no evil, see no evil, speak no evil - quite relevant and useful.

After one reads or hears about these three monkeys, one tends to ask following question.

Why should I not hear, see or speak evil if I really am

convinced about it? Does not it amount to being a hypocrite?

The answer is simple but very useful in overcoming sensory stress!

What we hear and interpret is a function of limited range of hearing and seeing and limitations of the processing of that information based on past experiences, in our brain. Hence to feel that it is the only truth and declare it as truth amounts to being unrealistic and arrogant. It is fallacious. So not hearing or seeing evil is actually being aware of the limitations and not talking about bad things is actually talking about one's interpretation with this awareness and humility.

Understanding this scheme gives you the knowledge of perceptive error and its correction. Moreover it also enables you to rectify and refine your response. This can improve relationships at home as well as at working place and thereby improve your performance also.

Among various troublesome sensations, pain can be extremely excruciating, life threatening and debilitating. But in most instances it gets excessively intensified because of one's reactive and reflex resistance and resultant apprehension. The first and foremost thing is that, accept pain. This is because, pain by itself only alarms and suggests severe tissue damage but not necessarily dangerous prognosis. i.e. the outcome of disease. In fact most of the times pain is temporary as most of the times the tissue injury responsible for it, heals on its own or by simple medication. Once pain is accepted and its pathway and its processing in brain is imagined, then, its disturbing influence is reduced. This in turn lets you decide about the right step to take for getting appropriate remedy! Take it! (See Fig. 9.4 on page 128)

Unpleasantness of the other sensations also can be overcome to a great extent by this method.

Affect

Unpleasant somatic and visceral sensations, can disturb

our mood. This disturbance can be overcome by proper understanding about pain and other sensations. But one can improve the threshold to pain by developing the attitude of victory and responsibility towards oneself rather than that of irresponsibility, despair and cynicism. Practice of deep breathing can prove useful.

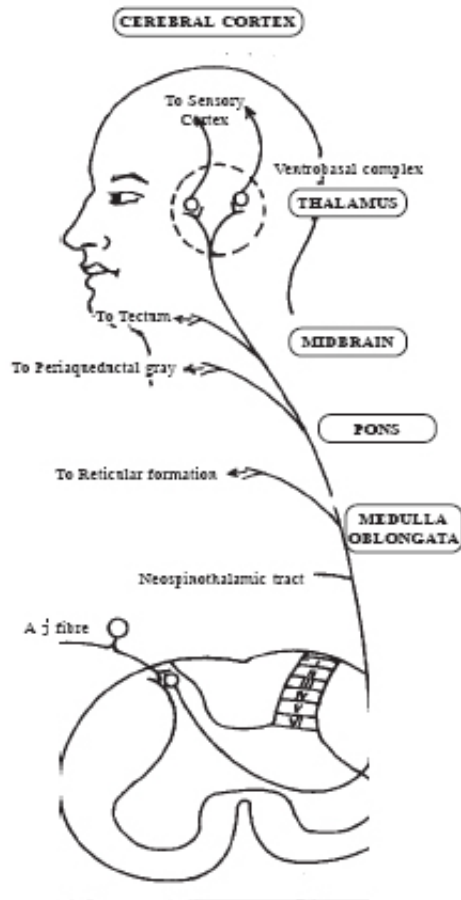


Fig. 9.4: Pathway of pain : To illustrate how various other stressors also affect human being

Conation

Massage

Common unpleasant sensations are sprain, soreness in muscles, backache, body ache, headache, etc.

The age old measure of massage is very useful and has an inseparable element of emotional soothing.

There are different types of massage. All of them help you to improve blood circulation in almost every nook and corner of your body.

In the evenings the head massage is especially useful. You can do it yourself. You can use Brahmi oil - (This is an oil in which there is extract of Brahmi and some other medicinal herbs. since Brahmi is the main ingredient it is called Brahmi oil. Brahmi = *Hydrocotyle Asiatica*) and get the additional advantage. Massage eyes, face etc.

As far as body massage is concerned, it may not be feasible to take it every day. But at least once in week whole body massage can do wonders to your health. You can use Narayan oil. An oil which contains extracts of several medicinal herbs and is traditionally used in India for massage in treatment of neuromuscular and musculoskeletal disorders. It is used for massage even in cases of paralysis) for additional benefit.

Foot massage

It is useful to massage the feet twice or thrice a week. The best time to massage the feet is in the evenings. Feet take all the burden of the body. But they do not receive enough attention. Callosities, corns, scaling, fungal infections, bruises are common on feet. This is especially so in case of those who do a job where standing for long time or walking is required. Ill fitting shoes, allergies to synthetic shoes are also common problems. They keep on nagging, an individual and disturb one's peace of mind.

Regular massaging ensures flexibility of the small joints and adequate circulation and micro-circulation in the feet. This is especially useful in diabetics who are prone to develop vasculopathy (defects produced in vessels leading to decrease in blood supply leading to proneness for infections, necrosis and gangrene. Necrosis means death of cells and gangrene means pus formation also called putrefactions) and resultant damage in the feet, in

the form of necrosis and gangrene.

Massage when given with love and care can be far more soothing and healing than when given by a professional (who may be indifferent).

Correction of posture

Correction of posture is important in alleviation and to some extent treatment of pain caused by spondylosis, backache, tension headache, low back ache and so on. It is also important for elevating the mood (Because, body posture can affect your emotions also), which is usually disturbed in association with pain.

This effect on emotions is important because, emotional disturbances themselves are reflected in a variety of pains and disturbances of posture.

This knowledge, is instinctively used by some actors. They use posture as effective means, of body language.

Therefore erect posture is preferred whenever possible. Moreover sit with your back and loin touching the back of the seat. This reduces undue strain on your back and reduces the chances of backache.

Also make sure that you use suitable remedies. Certain physiological conditions such as pregnancy also produce unpleasant sensations and can be alleviated by suitable medication. Medical help in these matters can be sought from a family physician. Reduction in unpleasant sensations whenever and wherever applicable, increase in pleasant sensations such as music, fragrance, decoration, colour selection etc. would be discussed once again subsequently.

At sociopolitical level

This education should be imparted to every one concerned as a matter of policy.

The non governmental organizations (NGOs) private industries, trading businesses and also other government institutions must earmark time, money, space, energy and expertise for training, supervision and practice of various

techniques, methods and arts of strengthening body.

Training in proper breathing, proper posture, healthy clothing, exercise, diet, yogasanas, importance of walking, jogging, simple healing techniques such as massage, first aid measures must be given.

HOW TO MANAGE DIFFERENT INSTINCTUAL STRESSORS?

Due to the development of central nervous system and endocrine system there is development of INSTINCTS, which if not fulfilled can produce stress.

Let us see one by one how instinctual stress can be overcome.

1) Survival

Survival is the most basic instinct. With increasing value crisis, survival of a common individual has come into jeopardy.

At individual level

Cognition

Studying and understanding the law and order situation and other risks to survival is not possible for everybody. Though it is true that law and order situation affects the safety of common people the fear psychosis can not solve the problem. Hence it is important to learn the importance of human values and incorporate them in our life. When we add noble purpose to our life the survival instinct gets evolved into noble mission. As a result we become fearless and peace loving and impart the same to the surroundings.

Affect

As explained previously, cognition influences the affect hence improvement in affect includes developing courage and strength (through TSM) about one's own survival but it also includes the concern for the security of the others such as senior citizens, handicapped, women, children and others requiring protection.

Conation

As explained previously, public education of law and order situation and the causes of its deterioration, getting trained in martial arts, participation in outdoor sports, hiking, physical exercise and fitness programs in schools and colleges are not unimportant. But most important is our participation in peace promoting activities. These may include meetings of different Parties, castes, communities, unions and other organizations on common platform besides many more activities promoting dialogue and harmony.

At sociopolitical level

Efforts at decision making and administrative levels are very important. These include not merely increasing police force and/or military force but implementation of proper education system and development of suitable industries in rural areas thereby increasing employment in rural area. In short all efforts have to be made to stop the exodus from villages into cities. As stated earlier, government can take help of experts to expedite these things effectively. TSM should be taught at all levels.

2) Hunger

At individual level

Cognition

A) Role of **CHO** (*CHO = Carbohydrates - useful for energy found in rice, wheat, potato etc.*), **FATS** (*FATS = Found in oils, lard, ghee, butter etc.*), **PROTEINS** (*Proteins = There are formed of amino acids and useful as building blocks in body.*), vitamins, minerals, fiber, vegetables, condiments, sprouts, supplement of vitamins, essential fatty acids, spirulina, antioxidants etc. is described in my book (थकवा घालवा स्फूर्ती मिळावा.)- 4th edition published by Manovikas publication, Amadar Niwas compound, Near Mantralaya, Church gate, Mumbai 400 032. Phone 2470 4502.

But to put it in brief,

B) Do not fall prey to the aggressive advertising campaigns. Use your own discretion and common sense

while reading books on nutrition and health promotion.

Affect

Developing right attitude about food and drinks. The right attitude means attributing optimum importance. We should not neglect the importance of selection and consumption of proper food and drinks but should not be obsessed by it. We should not allow it to assume the form of fetish.

Conation

□ Participate in education of right kind of health foods and promotion of agricultural and industrial production of health foods.

□ As far as possible eat home made food, avoid excessive consumption of any one type of food such as ice creams, chocolates, deep fried foods etc. Do not drink excessive soft drinks, beer or hard liquor. I am stating this because every one of us tends to get tempted to overindulge in these things, many times because of aggressive and attractive but almost always deceptive advertisements and commercial campaigns of sale promotion.

□ In stead of using only wheat make use of patni, (A variety of reddish rice which is unpolished), nachani (raggey), bajara (Food grain called *Holcus spicatus* in botany), jawar ((Food grain called *Holcus sorghum* in botany), corn and other options.

□ Use plenty of green leafy vegetables, salads, sprouts and seasonal fruits. Instead of using white bread use brown bread, corn flour bread, biscuits made from other cereals such nachani , bajara etc.

□ As regards oils, you can use sesame oil, on Monday, groundnut oil, on Tuesday, palm oil, on Wednesday, coconut oil, on Thursday, mustard oil, on Friday, sunflower oil on Saturday and so on. But overall intake of oils should not be in excess.

□ If you are a person in your forties or above, then after consultation with your family doctor, take a tablet of vitamin B complex on Monday, vitamin E on Tuesday,

iron tablet on Wednesday, Multivitamin on Thursday, Spirulina on Friday, calcium tablet on Saturday and so on. You may use chyavanaprash, drakshasava, arogyavardhini (which are Ayurvedic preparations used in health promotion). after consulting your family vaidya. i.e. expert in Ayurveda (one of the ancient Indian system of medicine, which literally means science or knowledge of life).

□ Drink plenty of water. It is good to avoid excessively cold water or cold drinks.

You may make use of Wala, (A kind of grass, the roots of which have flavor. It also called Khus) which is traditionally used to flavour drinking water. It has soothing pleasant perfume and it appears that it has cooling effect also and hence especially used in summer. It is quite affordable for a common man.

□ Indulgence in anything or any activity (including exercise) in excess, is usually harmful. Tobacco and Alcohol are no exceptions. But attaching stigma, usually gives rise to guilt complex, phobia, anxiety etc., which are counterproductive.

To get rid of compulsive tobacco and alcohol consumption, try to find out what exactly you want in life, by evaluation of the degree of satisfaction, by introspection and by positive and negative reinforcement (cf pages 194-197). This will help you to assert yourself, get involved in TSM and get much more pleasure than that in tobacco and alcohol consumption.

It is not tobacco and alcohol who are the culprits, but it is the unsatisfied, restless, anxious, worried, depressed and frustrated state of mind that is the culprit. Gradually you will be able to break the shackles of tobacco and alcohol by internalizing, practicing and spreading the concepts discussed in this book.

□ Since many of us suffer from diabetes and hypertension let us see the broad principles of diet in such conditions.

It is always good to consult your family physician and dietician in such matters. They are the ones who take all the responsibility and are available in times of emergency.

But in general, cutting down the salt (sodium chloride), cutting down the oil, cutting down red meat would help.

Addition of green leafy vegetables, fruits, salads, methi (Fenugreek seeds) sprouts, alfalfa (lucerne)

sprouts, essential fatty acids (these are available commercially with chemists), vitamin E, multivitamins, juices of bitter gourd called Karel in Marathi, (botanical name Momordica Chirantia), neem (which is called Kadulimb in Marathi, (botanical name Melia Azadirachta), trifoliate leaves of a tree called bel in Marathi and Bilva in Sanskrit (botanical name Aegle Marmelos), fruits of a tree called Avala in Marathi (Botanical name Phyllanthus Embelica), ginger (Botanical name Zingiber Officnails), Peppermint leaves (called Pudina in Marathi, botanical name Mentha Piperata), fruits or skin of the fruits of Mangosteen tree (called Kokam or Bhirand in Marathi), leaves of basil tree (called Tulas in Marathi, (botanical name Ocimum Sanctum), Jamun (which is called Jambhul in Marathi, botanical name Eugenia Jambolana).

Replace the buffalo milk by cow milk in your diet and increase the intake of butter milk. Drink plenty of water.

At sociopolitical level

As stated earlier, government can take the help of experts but some points must be stated again and again.

□ There should be TOTAL ban on the advertisements in any form (direct or indirect) of drinking alcohol, tobacco smoking, tobacco chewing and similar harmful and addictive things.

This is because advertisements create an artificial demand (actual craze) of these things. Advertisements deceptively glorify and glamorize these things, give them social respectability, prestige, a sense of greatness (which is totally illusory) and worse of all make us feel stupid and lowly if we don't indulge in these things.

□ Government should seriously consider the change in education system, and create a healthier atmosphere which would reduce the frustration, anxiety and depression level in the society.

Some broad changes suggested are :

- 1) Introduction of craft/s of suitable nature feasible in different areas at all levels in the schools & colleges. At least one hour a day.
- 2) Inclusion of physical work outs, exercise every day
- 3) Incorporation of social service on a regular basis
- 4) Incorporation of increasing outdoor sports
- 5) Promotion of art in any form according to aptitude.
- 6) Abandoning at least major part of rote learning by
 - i) Teaching languages and history only for improvement in communication skill and interpretation. No questions should be asked on any details described in the text books. (cognitive domain)
 - ii) Giving weightage to productive skills (psychomotor domain).
 - iii) Giving weightage to social service (affective domain).

□ Attempts to ban alcohol and tobacco are bound to be not only ineffective but counterproductive. Such attempts increase corruption, increase drinking of illicit liquor, create a sense of guilt or perverse pride and lead to deterioration of physical health.

□ The government should establish centers to do research in Indian cuisine and culinary practices and the Ayurvedic principles involved in them. This is extremely important to resist the dangerous impact of unethical sales promotion by various companies manufacturing food products and nutritional compliments, food additives etc.

3) Sexual needs

At individual level

Cognition

It is essential to acquire correct perspective about sex and sexual behavior. You would be able to get appropriate knowledge and perspective about sex, by reading my book on this topic in Marathi titled

Alternatively a compilation of my 18 articles in English on sexology are available with me for private circulation. It is important that one does not have to be an adolescent or young person to read about sex. My book would help you irrespective of your age, sex and educational background. Moreover you would appreciate its importance in educating the younger generations and recommend its use for them as well as those involved in sex education.

Affect

Proper attitude towards sex is developed as a result of proper education. This would help you to handle pressure of sexual needs and their aggravation by the seductive and tempting depiction of sexual behavior in a variety of media - print and electronic.

Conation

Participation in education of right knowledge, right attitude and right responses to sexual needs.

In case of personal problems either the author or a sexologist or a counselor can be contacted.

At sociopolitical level

The government should not hastily try to give a regimentalized sex education but take a holistic approach and introduce TSM in schools, so that the children can develop the correct perspective about sex and its role in life.

Sexologists, counsellors, non governmental organizations involved in sex education, law makers, government authorities and concerned people have to do away with totally conservative outlook opposing sex education on

the one hand and obsessive education of sex with no realization about its place in human life on the other. Parenthood, family, relations, social commitments, economic conditions, emotional element, mutual respect, individual aspiration and such many issues are associated with sex and must be considered in details while educating about sex. Sex does not pertain to mere anatomy of sex glands, genitals and secondary sexual characters.

4) Thirst

At individual level

Cognition

It is always important to know the various mechanisms of your body. The mechanisms involved in thirst and many other physical phenomena and many medical topics are described in my book In Marathi titled (म्हणजे काय होते?) published by Tridal Prakashan, Mumbai-4. (3850192, 3856792).

Affect

As mentioned earlier, resist the influence of aggressive advertisements, which make you feel great if you drink certain cold drinks and make you feel lowly if you do not.

Water is the best thing to quench your thirst. Other drinks are fresh fruit juices, butter milk, coconut water, etc.

Conation

Participate in education of your children as well as the general public with respect to the role of aggressive sales promotion campaigns and their influence on the health and economy. Explain to yourself as well as others that those who want to go for beer or other such drinks, should do so only if they know everything about these drinks and are aware of the risks involved. They should not get fooled by the “make believe” kind of stupefying, deceptive advertisements.

At sociopolitical level

As stated earlier, the government should ban all

advertisements on alcoholic beverages and drinking water should be made freely available in all public places. Thirst is one of the basic instincts of every organism and so also human beings.

We find that in some parts of India in every office or department there are water coolers. In majority of the remaining parts water is not available at all. It would be for better if offices everywhere use big earthen pots cooling and storing water. This would be better for health environment friendly, save electricity and support pot - makers. The manufacturers of water coolers and fridges (not only in India, but all over the world) and government policies which benefit them should realize that thousands of potmakers who do not have the opportunity to advertise their products have been giving (and should be encouraged and promoted to give) excellent service to mankind. The technology technofilia and in some cases rested interests of authorities should not be allowed to condemn the earthen potmakers in mass to unemployment, starvation and death on the one hand and simultaneously victimize a vast section of customers to ill effects of excassively cold drinking water and other cold drinks on the other hand. The government, non governmental organizations and we all have to understand this humane angle of quenching thirst and promote use of earthen pots, at least wherever feasible and plausible.

In addition natural drinks such as Kokam, coconut water, butter milk, fresh fruit juices should be promoted and popularized and their manufacturers makers enabled to at least coexist with the manufacturers of artificial cold drinks.

It must be made clear that there is no intention of spreading malice or hatred about artificial cold drinks, their manufacturers and the workers involved in their production. In fact stress would benefit them in promoting healthy life style in their own lives.

Organizers of the stress management programs going on everywhere have to appreciate that without taking this

much stress of addressing these aspects of problems, stress management would be temporary and in most instances counterproductive in the long run.

5) Herd requirements

At individual level

Cognition

It is nice to know about the herd behavior and our needs from scientific point of view.

Affect

Developing right approach to our needs helps us take right steps in fulfilling our needs.

Conation

We need company and preferably company where we feel buoyant and happy. Choose your friends carefully. This helps you to avoid some people who have the habit of boasting incessantly about their so called, achievements (which are in fact petty gains) and thereby either knowingly or unknowingly belittling you.

Socialization in some suitable form is usually beneficial. Some get involved in unions, parties, some religious sects etc. It gives them a sense of security. But one should protect oneself from exploitative/dictatorial/ fraudulent organizations. This can be done, by asserting oneself from time to time.

At sociopolitical level:

To ensure that no one feels and no one is left lonely is obviously impossible. No government can do this. But in today's society large section of society is being condemned to live and feel lonely. This is because the human bonds between friends, families, colleagues etc are being neglected in preference to competitive spirit, economic considerations, professional rivalry, political benefits etc. What is important is the perspective, plans and programs of the rulers are enhancing and promoting this process. The media in print & electronic are contributing to this in their own way.

If the government introduces the principles of education mentioned earlier on pages 62 to 69, in brief, then alienation from family, childhood friends, native place etc. would be reduced. In India people consider earth as mother and goddess. Separation from it geographically is stressful from instinctual as well as emotional point of view.

The government and the others who can and do influence society should appreciate the need to expedite the process of bringing logical end to individualism by facilitating its culmination into self - realization. This can enable the society to rise from adoring the values mentioned above (which are rendering them lonely) and experience oneness and togetherness with others. Some more practical steps (the experts can think of many) are as follows.

- The government should encourage group activities right from schools by promoting educational tours, team sports etc.
- There should be legal provision for residential quarters for the employees.
- The transport systems should be improved so that people can meet one another more frequently.

6) Habitat

At individual level

Cognition

Studying the concept of habitat is useful to understand our situation. Habitat in simple words means the over all atmosphere around us. Like animals we also get stressed if and when kept in an alien habitat. When a person comes to Mumbai or such big cities, from the villages he/she is exposed to an entirely alien habitat and this new habitat acts as a powerful stressor.

Affect:

Recognition of this phenomenon gives the assurance that we are not the only ones who are victims of this kind of stress. This in itself would help reduce our stress.

Conation:

This type of stress can be overcome to a certain extent by:

- ☐ Forming organizations of the residents from the same villages.
- ☐ Forming organizations of particular castes etc.
- ☐ Going to native places regularly and especially for fairs of the patron God of the village.

But in absence of such outlets or in spite of such outlets you can suffer from stress of alien habitat and the only solution is to undergo a course on TSM. This is because reading of this book may give you understanding of stress and TSM but participation in TSM course would give you first hand experience of development of genuine and warm bonds of love and affection with other participants. This would not only help you to overcome isolation, loneliness and alien habitat, but also help you to live more buoyantly and effectively to the best of your satisfaction.

At government level

The stress resulting from change of habitat can be prevented, if self-employment becomes available in the vicinity of the villages or towns, and travelling made far more convenient & comfortable than what it is today.

Natural habitat for everyone, constitutes fresh and clean air, river, rivulets greenery. The deserts and snowy mountain areas may vary but in any case present rate of legal and illegal concretization and other ecodestructive programs have to be stopped at national and international levels.

These measures contribute to stress management significantly and should not be neglected as political issues.

7) Defecation

At individual levels

Cognition

It is important to study the problem of congestion of cities.

This would help you to understand the menacing problem of defecation especially in big cities.

Affect

Once the problem is understood it becomes possible to develop resilience and a right approach to the problem. Whether you yourself are a victim of the problem or otherwise, this is useful.

Unfortunately there is a tremendous stress even on answering the natural calls. It is a shame that people have to answer the call of nature on the sea face, railway lines and by the side of roads, in cities such as Mumbai.

Conation

Hardly anything can be suggested to the pavement dwellers. In fact suggestion in that regard would amount to a mockery of the poverty and helplessness.

But the more fortunate ones must participate in revision of government policy of, proliferating questionable and controversial system of western housing and latrines with flush tanks. Dr. Ashok P. Kale (57 Somwar Peth Pune) has lot of expertise in this field and should prove beneficial.

At sociopolitical level

At governmental level, there should be active and vigorous plans and programs to decongest the cities and rejuvenate the villages. Giving a serious thought to the educational and industrial policies and appropriate changes in the same would definitely help in this. This is because, these policies decide the number of people leaving villages and entering cities. It is this sheer number which renders even Herculean attempts to provide civic amenities ineffective. It is strange that human society which has created wealth is enslaved to wealth in such a humiliating manner. Indeed the exodus of helpless people from villages is indicator of degeneration of a human society that can create wealth. It is high time the rulers stop this humiliation. Mahatma Gandhi always taught that poorest person & smallest village should be at the center while making & implementing any policy.

The problem of constipation

At individual level

With growing age there is usually a complaint of constipation and flatulence (In India commonly referred to as “gas trouble”). One feels better with the use of laxatives and purgatives. But they should not be used as a matter of routine. But in middle age and old age, the muscles in general, and those of abdomen and intestines gradually lose their tone and strength. This makes constipation a common ailment. Use of TRIPHALA CHOORNA, OR AROGYAVARDHINI (These are Ayurvedic preparations. Their benefits can be learnt from your family physician. Incidentally, all physicians would be required to develop holistic approach and would be required to have insights into what are called alternative systems of medicine) in subclinical doses can prove useful.

Polished cereals, white bread, eggs and other food stuffs which do not contain fiber, tend to reduce the contractility of gastrointestinal tract and may cause constipation.

Sedentary habits further aggravate the situation..

So use more fiber in diet by using green leafy vegetables and salads and take exercise regularly.

At sociopolitical level

We have to appreciate, how government policies affect even our physical health in day to day life. There seems to be systematic promotion of icecreams, fast foods, over polished food grains, white bread, pastry and so on.

It is essential that roots and tubers cultivated in hilly areas and villages, green leafy vegetables of hundreds of varieties and traditional cuisine has to be promoted.

Many of you may remember a sweet pizza like preparation of Jack-fruit, called Sandan. There used be other preparations called Appe, Aluvadi, Sanja, Raspohe, Poheladoo, Dethi, Komb and many more.

The government and people in the forefront have to revive and nurture such cultural heritage. It has to compete with

the aggressively advertised & fiberless food varieties from the prevention and treatment of constipation at individual level !

□ It is important that a government promotes brown bread, parboiled rice and such health promoting foods by reducing tax on their production/ manufacture.

□ Restaurants with health promoting foods should be either exempted or at least given concession on income tax, sales tax etc.

8) Movement

At individual level

Cognition

It is proved by experiments on laboratory animals, that the restriction on movements causes tremendous stress. Sedentary individuals suffer from such stress, which is called hypokinetic stress. Importance of walking in management of stress is discussed in my article on walking, entitled HOLISTIC INSIGHT INTO LOCO-MOTION AND HEALTH PROMOTION published in MEDIFACTS, PGS 24-27, VOLUME 20, 1997.

Affect

We must develop concern about our sedentary habits.

Conation

Participate in spreading the importance of physical activity and its beneficial effects on health and performance. If the nature of your job is sedentary then get involved in aerobics, dance, trekking, hiking, walking, climbing, swimming etc. Do this, without bringing extra strain on your day to day routine schedule and economy.

Walking can be combined with NAMASMARAN (Remembering or chanting the name of God, Guru, Prophet or Saint as per your belief) and it can work as what is called GAMANA VIPASYANA. GAMAN means walking VIPASYANA is meditation So walk every day, your way to total health! Walking is important and so is climbing. Do not use lift (elevator) for climbing three or at

least two staircases, (floors) and do not use lift (elevator) for walking down about six stair cases.

At sociopolitical level:

□ The government should improve the facilities of travel and tourism so that trekking, hiking, roving etc. become available for a common man slogging in sedentary job in big towns and cities. Big cities and towns have become prisons. A common man can not afford to go for a weekly outing and this definitely brings about enormous stress.

□ Swimming pools, play grounds and gardens should be made compulsory for industries as well as government offices and locomotion should be promoted for better work output.

□ There should be five days working week at least in big cities so that the people can leave the city for a weekly outing.

At present, the school children sit for hours together, in their class. This is also true in case of colleges.

This kind of sitting for hours together is detrimental to health, physical as well as mental !

The government must introduce a law to stop this. In no case the children should have to sit in one place for more than an hour at a stretch. The number of school hours should be reduced. Most importantly, over 60 percent of the time should be spent in outdoor sports, service and production. This can be possible if unnecessary stress on memorising of history, language texts and their examination are legally banned (cf pp 62-69).

Besides education, several jobs involve hypokineses, eg. banks. It is important that in such jobs, physical activities are promoted.

As a rule the employee should be encouraged to take a break and walk for short time at least three times a day during his/her working hours. This can improve health as well as performance.

9) Physical activity

At individual level

Cognition

It is important to know that physical activity is an essential aspect of life and if an animal or man is prevented from doing any activity, it can cause disuse atrophy of that part of body or whole body. It is important to note that, as a result of moderate stress, beta endorphin is secreted by cells located near the alpha and beta cells of pancreas. Beta endorphin suppresses somatostatin and stimulates insulin and glucagon secretion. This is likely to be beneficial in the patients of diabetes. But besides this, exercise is known to up-regulate insulin receptors, which are essential for efficient reduction of blood sugar, by the action of insulin. Its role in diabetes would definitely be established more fully in the course of time.

Affect

Developing right concern and interest in physical activity.

Conation

Regular physical activity, performed systematically, regularly, appropriate to one's constitution and age, is called exercise! Several other aspects are also considered. They include, type of exercise, degree of cardiovascular work out, purpose or objective of exercise etc.

Do flexion and extension exercises of your arms, elbows, hands, fingers, ankles, knees, hips.

Practice vakrasana.

In short, let the body experience, as much activity during your sedentary job as would be refreshing and feasible.

At sociopolitical level

Like play grounds and gardens gymnasia should be compulsory for all educational, research,

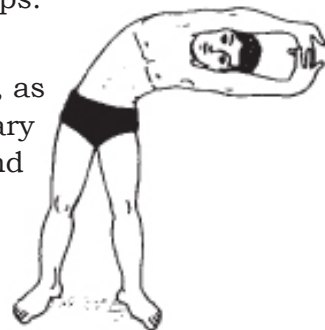


Fig. 9.5: Vakrasana

administrative, industrial and for that matter all the organizations where a sedentary employee should get time and opportunity to do light physical workout at least once a day during his/her duty hours. This would reduce the stress, improve the health, increase the involvement in duty and thereby improve the performance of the employee considerably.

An important concept of physical, instinctual, emotional and intellectual, growth, maturity, improvement is crucial to education system. Importance of healthy physical strength, skills, agility, timely and humane gratification of instincts, growth and profundity of emotions and overall development of intellect and socially beneficial expression of all these can not be overemphasized. If this is understood then it would entail suitable changes in educational policy so that future generations of human beings enjoy holistic health!

10) Lack of excitement and monotony in job

At individual level

Cognition

It is necessary to appreciate that we all, including our superiors and our subordinates are human beings and require a certain degree of excitement for remaining active, productive and efficient. We do need thrill in our job in one form or another.

Affect

If we appreciate this simple fact then we would be able to develop right attitude and that would enable us to interact with family members and our colleagues in an appropriate manner.

Conation

Practice frequent stroll and change positions frequently if you are doing a sedentary job. In addition, wash and massage face two or three times a day. Massage your eyebrows and eyelids. Wash mouth at least thrice a day during duty hours and if feasible brush teeth at least once. Do exercises of tongue such as rolling the tongue

up, down, left right etc, inside the mouth.

Practice SINHAMUDRA which involves opening the mouth wide open and stretching the tongue out of the mouth and hold it for 10 to 15 seconds. Fig. 9.6

Practice simple deep and slow breathing exercise called anulom vilom.

Do BRAHMA MUDRA

:

But this is not enough. Excitement is possible if there is cordial relationship, celebrations, good incentive and progressive changes and most importantly appropriate division of labor according one's liking and aptitude is encouraged. Think over this point and make suggestions to your superiors in this respect.



Fig. 9.6: Sinhamudra



Fig. 9.7: Brahma Mudra

At sociopolitical level:

Government (administration) should try to ensure that:

- Aptitude is given importance while allocating duties.
- Accountability is enforced and incentive for merit

is ensured,

- The progressive ideas, useful suggestions from the employees are paid due attention to,

Practice NASIKAGRA DRISHTI Fig.9.8 and
BHRUMADHYA DRISHTI Fig. 9.9:



Fig. 9.8: Nasikagra Drishti Fig. 9.9: Bhrumadhyha Drishti

□ Festivities ,
prayers, celebrations are
encouraged.

Many more suggestions
could come from people
from respective fields or
areas of specialization.

11) Parental care At individual level Cognition

If you are a mother or a
father, then nurse your
parenthood. This is
extremely important.

Breast abscesses, malignancies, neuroendocrine
disturbances, anxiety neurosis etc. can result because of
deprivation of the motherhood. Because of the peculiar
education system which does not nurture all the domains
effectively, our children suffer from the deprivation of
parental care and we suffer from deprivation of parental
instinct. This is because we are trapped in two values.
One of petty selfishness and second of the superficiality.



Fig. 9.10: Jaw relaxation

As a result, we want our children to slog incessantly for lucrative career, (with no concern whatsoever, for their inner fulfillment). We want them to get fame, name, success in competition and be seen or treated by the society as “great” (again without any concern for their own growth and satisfaction), by hook or crook.

Because of false values we feel compelled to expose our dear children to inhuman stress and strain from the tender age of two or three and as a result starve ourselves of the noble instinct of parenthood and create an abyss for ourselves and our children.

One of the important aspects of motherhood is breastfeeding. It was not an uncommon sight to find children being breast fed even in public places such as bus, trains etc.

But thanks to the perverse impact of promotion of bottle feeding one never finds a woman breast feeding her baby. This change did not come automatically or accidentally. It has a lot to do with systematically developed concept of peculiar status symbol. It was perpetuated in society, that using bottle is superior to breast feeding. Besides, the breasts which do not exist as organs of mere sexual attraction or gratification were made to look so by the various media. Their crucial role in motherhood and the crucial role of breast feeding in health of mother and the baby was either knowingly or unknowingly concealed or neglected. This has led to development of totally irrational shame and perverted lust about breasts. It must be appreciated that this fact has led to deprivation of women of motherhood and babies of that vital sap of life and warmth of deprivation of (eternal) love. This makes women and children fickle & fragile. The women in village, who have not been exposed to this perversity enjoy dignity and health in breast feeding & impart the same to their babies.

Having to hide the breast feeding out of fear of and having to exhibit breast or breast feeding out of helplessness, compulsions or mercenary interests are indicative of diseased society and its perverted attitude

towards sex.

Parental care also involves understanding the concept of holistic development of child, (Cf pages 62-69).

This would help the parents to overcome the obsession of the prevalent individualistic lop sided and unhealthy pursuit of careers and the hazards of such pursuit.

Affect

Do not get trapped in above two values. Get rid of petty selfishness, superficiality, petty pursuits and resultant frustration or resultant arrogance.

Conation

In stead of harassing, or pampering, love your children and care for their healthy growth and development. Let the children get warmth, solace and encouragement from you and not harassment, scolding, nagging, admonishing and so on.

Spread these views so as to reinforce your conviction and help others.

At sociopolitical level

Creche should be made compulsory for every working place wherever there are female employees.

The working mothers should be given sufficient time for nursing their babies during duty hours.

Due to the dwindling of the tradition (in India) of performance of one's role as son, father, mother, brother etc. in family and emergence of individualistic pursuits with no concern for the family and society, the parents have begun to neglect parental duties which who once considered sacred (in India). As a result, uncontrolled unlimited unbouded indulgence in petty pursuits and physical pleasures has led to disruption & severance of bonds between parents and children. Rapidly disappearing conventions about the sanctity of one's role in society eg. as a teacher, student, trader has unleashed fierce and inhuman competition and has further helped the disintergration of family and stress on parental instinct

has further increased.

It is the duty of the governments and the leaders in various fields including media to seriously share the importance of culmination of individualism, pettiness & superficiality into self - realization so that the rapidly degenerating bonds between parents and children can be revived. Self - realization is nothing else but broadening of one's perspective, thinking, feelings or in other words, the self - realization is same as holistic health.

HOW TO MANAGE THE HUGE VARIETY OF EMOTIONAL & INTELLECTUAL STRESSORS ?

Emotional stressors can be occupational, economic, communal, regional, linguistic, cultural, social, educational, racial, marital, familial, political and so on, as discussed earlier (pages 49 to 79), under the broad heading of dimensions of stress and the subheading of stress in human beings. In short emotional stressors can be active in every possible area of human life. Besides there can be emotions which have no objective basis, no realistic basis, no realistic counterpart. They are totally unfounded and can still cause stress. These can be fear, anxiety, restlessness and so on, about physical diseases, loss in business, suspicion about the spouse, fear of demotion in job etc.

It is important to learn about our emotions and how they influence us and why. It is true that every one can not spare time and energy to understand the intricacies of physiology, psychology and philosophy to understand emotions thoroughly. But we should at least remember that there are two broad aspects of emotions.

These are SUBJECTIVE AND OBJECTIVE.

Most of the times our emotions are subjective. They are described in terms of likes and dislikes, painful and pleasurable, happy and sad, elevating and depressing and so on.

As is stated earlier on page 92, it is important to appreciate that our lives are governed by two important concepts deep

rooted within us. These two concepts are superficiality and pettiness.

Because of these two we form dualities of various conditions. These are in the form 1) fear, dreams, hope, expectations etc. about future 2) guilt, pride, arrogance, delirium etc. about the past, 3) preferences, likes, pleasures etc. about some things and 4) hatred, jealousy, despise, aversion about other things or phenomena.

These dualities tear our mind in four directions and cut us off from the source of power or fountainhead of life from us (cf 9.3).

Once we understand emotions at least to some extent then we are able to gradually develop right attitude i.e. readiness to introspect ourselves and preparedness to consider, others. This attitude is important and in fact is the foundation for effective management of stress. In short, this considerate attitude gives the humility and confidence so much needed in overcoming stress.

Once we have such a humble and confident attitude, then we can start practicing the principle of ACCEPTING, LOVING AND RESPECTING OURSELVES AND HENCE THE OTHERS UNCONDITIONALLY.

This we can do by conscious efforts as well as by NAMASMARAN.

Second important thing is to educate the others about these various aspects of emotions. More details can be found in my books NAMASMARAN, SAHASTRANETRA, HOLISTIC HEALTH, BOOKS ON GEETA, BHOVARA, AND SURYASHODHA.

It is important to study the problems in various fields of life and their influence on life. It help us in responding appropriately and courageously and dispassionately rising above vested interests, petty gains, communal interests and so on.

Many of us have a notion that anybody who is calm and quiet is at a higher level of consciousness. In fact we have a long tradition of worshiping calm and quiet people no

mater how much inert and parasitic they are. We always use the quotes, from Geeta, to justify this. Geeta does not advocate this. Geeta states that ACCURATE COGNITION, APPROPRIATE AFFECT AND ACCURATE ACTION, which complement one another, constitute the key to HARMONIOUS, profound and prosperous life.

If you are callous it is easy to remain calm and quiet.

If you are sensitive, then your heart would bleed for the welfare of the suffering and ailing millions. It is adorable as compared to the callous calm and quiet people. This quality of being disturbed for the suffering people is called divine restlessness. If you participate in TSM course, then you would experience harmonious buoyant, enthusiastic and victorious state of mind.

Through this you can give, expression to your insight, about the various social problems acting as emotional stressors. This can be in various forms including write ups, novels, essays, stories, dramas, songs, poetry, ballet and so on.

This also includes your behavior, in terms of your gestures and personal communication with others. Through such communication you can share your understanding of emotional stressors, and the solutions, possible at various levels with your acquaintances, friends, colleagues, students and others.

Some practical steps, which can be useful, are as follows:

Giving of greetings and gifts. This is an honest, poetic and artistic way of admiring. We all need it. We all know that a pleasant surprise in the form of a greeting card or a gift elevates our mood within no time! As far as possible buy the greetings from the schools or institutions for handicapped children, senior citizens, handicapped individuals or other weaker sections of the society. This will nurture your inner self. We have to appreciate the fact that by doing this, we are actually benefiting ourselves.

Use of fragrance of perfumes, flowers, attars, (these are

perfumes prepared usually from the essence of fragrant flowers) incense sticks etc. can definitely contribute to TSM. It is always good to remain in a good olfactory environment. It should be noted that the many Indian women traditionally wear flowers in their hair (*Ayurveda has described in my beneficial properties of flowers proving that the tradition has scientific, medical basis.*). This definitely makes the atmosphere pleasant. This fact is used as a major way of treatment in aroma therapy.

Several hobbies such as singing, painting, interior decoration, indoor gardening etc. make you as well as the visitors happy. They do help as palliative measures. Sometimes hobbies can be productive and help in earning money. Such hobbies boost you in more than one ways.

But remember that mere hobbies can not be totally effective in managing emotional stress because it has acquired mammoth dimension and mind boggling complexity and maddening frequency.

Use of “matching” of colors definitely makes sense. For a dignified body image it is always good to do color matching or contrast matching as per one’s taste. This elevates one’s mood and pleases your visitor also.

In general it is said that:

If you are depressive in nature, then use bright shades such as yellow, pink, orange, red etc..

If you are short tempered, then use soothing colors such shades of green, blue, lavender etc.

Use of appropriate clothes is also important. Fitting and dignified clothes help you to get a good body image and boost your morale and also please the others.

Use of ornaments, though not essential, also can help you to improve the body image and your confidence. Ornaments according to one’s financial condition should be used. But it must be noted that a person who has understood and practices TSM can be happier and more buoyant than anybody without TSM with any number of costliest ornaments.

Cosmetics if used judiciously can help improve body image. Improved body image helps in development of self confidence. However it is essential to be careful about the possibility of their allergic and/or carcinogenic (substances which are likely cause cancer) nature. Hair dye in some cases does cause allergic manifestations. Even herbal products promoted commercially should be used carefully. Because they may contain preservatives, which can be harmful.

Touch therapy can be useful to a variable extent. It is well known that warm handshake, patting on the back, warm hug etc. can be really encouraging and rejuvenating, The patting of a child while putting it to sleep is a universal phenomenon and has extremely soothing and calming effect.

One should explore the wonders in “touch therapy” without prejudice and with open mind.

The importance of using the expressions “THANKS” and “I APPRECIATE”!

Even if you, in the initial stages, say it as a part of etiquettes and manners, it is alright.

Because, it indirectly teaches you not to take others for granted and thereby respect them. From pragmatic point of view, your appreciation works as an inexpensive incentive for that individual and encourages him or her to work for you in future.

Similarly, the expressions “I AGREE” and “SORRY”, remind you to be humane and humble respectively. Whenever you say, “I agree” it gives you a reminder that you do not “essentially” disagree with anybody’s true self. Hence, saying, “I agree” is really realistic. Moreover it opens a way for mutual understanding. As far as saying “I am sorry” is concerned, it reflects your genuine concern for the feeling of the other person and hence it is a very good way of developing heart to heart bonds.

ROLE OF DIFFERENT TYPES OF MEDITATION, AUTOSUGGESTIONS, SELF HYPNOSIS, SLOW AND

CONTROLLED BREATHING and YOGASANAS in management of emotional stress:**Meditation**

Different type of meditation include, Shavasana with slow and deep breathing and observing the breath, Dancing meditation, Laughing meditation, Types of laughing combining some other suitable exercises with laughing, Stotrapathana, Bhajana, Kirtana, Katha, Pooja etc (cf pg 177). These all may help a person temporarily. But unless there is penetrating intelligence they can shroud one's mind and take it away from the day to day realities of life and can make a person inactive, dependent, parasitic if one does not make use of reason.

Autosuggestions

Thoughtless auto suggestions do not seem to be of much value. In fact one may get trapped in one's own petty ideas.

But some autosuggestions are based on profound philosophical insight. They are as follows.

- A) I shall not get angry or feel sad today because it is about past which has gone by.
- B) I shall not worry or get restless because it is about future which may not come.
- C) I shall thank the nature or God for the bounties, because they are many times concealed and not apparent.
- D) I shall respect everyone, because global unity is an objective reality.
- E) I shall do my duty honestly because honesty means exploring the socially beneficial element in my work and that would prevent dragging of mind towards fallacious and illusive glamour present elsewhere.

Self hypnosis

Self hypnosis is effective as a palliative measure for temporary relief.

Slow and controlled breathing

If your breathing is uncontrolled and erratic then your mind also remains disturbed. Conversely if your breathing is controlled and steady then your mind also becomes steady and stable.

Deep, slow and controlled breathing is very useful. It seems to act through the harmonization of reticular activating system, which is a diffused network of neurons which extends throughout the brain and is involved in sleep, wakefulness, alertness and overall state of orientation of mind. It can be considered as a link between “neural centres” for various vital activities and the other parts of brain. Hence emotions can influence breathing and vice-versa. Hence slow and controlled breathing makes you calm and fresh and reduces mental agitation and disturbability.

Pranayama usually involves retention of breath. Timing of inspiration, expiration, retention and that of holding the breath after expiration, are important.

Shavasana = Shava - corpse
Asana - posture

The person lies down like a dead body and relaxes his body and mind in systematic manner.

Stotrapathana = Stotra means hymn. Pathana means to chant or recite.

Many hymns are very poetic and hence emotionally soothing & comforting.

Bhajana = Is actually singing hymns usually in group, with the help of instruments.

Katha = There is a tradition of teaching epics such as Ramayana, Mahabharat, Shrimat Bhagvat.

People attend these programs in large number and do find solace & peace.

Pooja : Pooja is worship. In majority of homes in India there is a place of worship. Every morning and evening people offer flowers & sweets, perfume, to their deity. They light incense stick and lamp also. This ritual though appears mechanical and irrational to many, has the potential fill the void, and reduce the feeling of loneliness.

The proportion of the timings is also important. The force and the frequency of respiration have also to be appropriate. The status of the body systems in general but particularly the status of the respiratory and cardiovascular systems has to be judged properly before one starts pranayama. Besides all these there has to be a Guru who is expert and can guide the student efficiently and safely.

One of the authorities on pranayama Swami Rama, calls pranayama as the **PATH OF FIRE AND LIGHT**.

Therefore for common individuals like us it is safer and wiser to use simple breathing exercises rather than going for difficult techniques of pranayama.

YOGASANAS

Yogasanas are well defined and perfected postures or poses of body. They are beneficial in several ways. They improve blood circulation, flexibility, balancing ability, and overall personality. Interesting aspect of yogasanas is that they do not increase the heart rate, respiratory rate etc. They do not cause excitement. They do not exhaust the practitioner. Instead, they are refreshing and soothing. Further almost every part of body including internal organs, is taken care of by gut pressure, bending, massaging, stretching etc.



Fig. 9.11: Padmasan



Fig. 9.12: Tadasan

Alterations in center of gravity are also beneficial, as they help in differential relaxation and contraction.

For further details please refer my articles on yoga. Several books are also available in market. You should learn them from an able person in a systematic way and practice comfortably and as much regularly as possible. The types of asanas have to be advised according to individual constitution as well as state of physical, mental, intellectual characteristics of an individual.

ARE CELEBRATIONS AND FESTIVALS USEFUL? WHAT ARE THEIR LIMITATIONS?

These are useful to overcome depression, frustration and such negative feelings upto a certain extent. But they are not remedies to cure social evils.

EFFECTS OF ADVERTISEMENTS

Most advertisements either innocently or deliberately bind you in a condition viz. If you do this then you are good, rich, famous, high class etc., if not then you are bad, poor, unknown and low class person.

This generally leads to development of poor image of the self and starts developing a sense of self pity and helplessness. This is followed by obsessive and frantic efforts, with no concern for ethical aspects, to get/ achieve what is depicted in advertisements. Success in achievement is associated with morbid arrogance and contempt for the “non achievers” and failure in the pursuits is associated with frustration to such an extent that the family relations are ruined or even suicides are committed.

CONCEPT OF CREATIVE PREGNANCY

Like a pregnant female whose total existence is focussed and focussed intently on the fetus, a person who has understood the importance of TSM, i.e. one who has become “pregnant” with TSM gets focussed on it completely. Like the pregnant female who does not bother about anything more than the fetus, the person involved in practising right concepts also slowly but surely gets rid of all other wasteful activities or indolence.

CHARITY OR SWADHARMA: PRACTISING RIGHT CONCEPTS

Being callous and crude and indifferent to the needs of other people is one stage of development. This neither allows you to grow from within and manage any form of stressor healthily nor does it ensure any development of the society.

Being kind to others is the next stage. It does make you enriched with emotional fulfillment and more over helping the others at personal level is certainly commendable.

But today with growing complexity of new emotional stressors due to increasingly complex society, it in itself does not suffice. Such kindness alone is not sufficient to overcome the complex emotional (and intellectual) stressors because it can not affect the roots of these stressors viz. the social and political evils in the form of a variety of policies, plans, administrative aberrations, laws, rules, conventions etc.

Benefits of proper education are depicted in figures 9.13 to 9.17.

In fact in the present circumstances, hypocrisy and pettiness is hidden under the guise of charity, and helps the social evils responsible for a variety of social maladies to continue to grow and thrive.

Therefore charity even if it is sincere and honest and even if it gives emotional



Fig. 9.13: Psychomotor & affective domain

SWADHARMA (स्वधर्म), is a Sanskrit word. It roughly means knowing, experiencing & expressing the Self in accordance with the nature of Self. It was nothing to do with religion, caste, creed etc.



Fig. 9.14: + ve Psychomotor & affective domain



**Fig. 9.15: + ve Psychomotor domain + ve cognitive
& psychomotor**

gratification, it is deceptive because of the reasons mentioned above. An intelligent person who realizes this, cannot get emotional gratification from charity. But never the less his desire to express magnanimity remains unfulfilled and causes, what is called **NEW AND COMPLEX EMOTIONAL STRESS**.

Many of you must have experienced that your donations and sacrifices have gone waste and in fact become counterproductive, because some one misused it.

At one stage of the development of society this could have been inevitable. Charity in those times also could have been the only way to give outlet to your goodness which otherwise would get suffocated and degenerated.

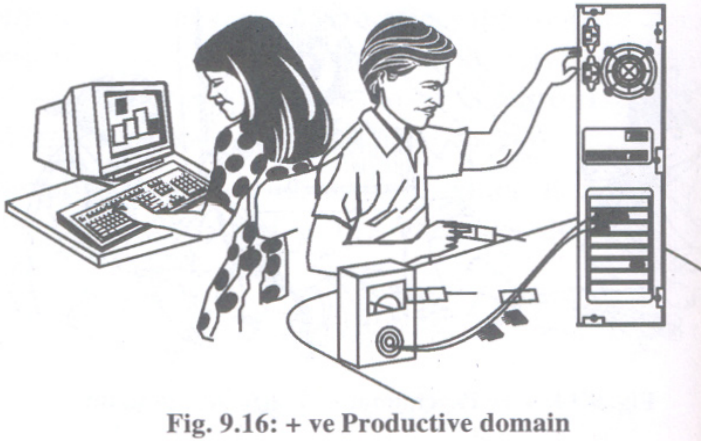


Fig. 9.16: + ve Productive domain

But today, by understanding SWADHARMA and practicing it, we can effectively manage new and complex emotional stressors, which are impinging on our conscience. Some of these stressors are in the form of a large section of our society being trapped as child labor, beggars, slums, pavement dwellers, with lack of self respect, lack of dignity, loss of confidence, lack of initiative to do anything, and/or total sense of shameless parasitism!



Fig. 9.17: + ve Affective domain

AGING HEALTHILY

When you understand how important it is to live meaningfully, you gradually overcome the fear of death and handicap. For additional benefit you may please read

my article on aging. But some steps beneficial in healthy aging are as follows.

a) It is important to broaden the horizons of one's mind right from one's youth so that one can overcome the possessiveness excessive attachment, too many & fastidious expectations from family members (which are usually responsible for discord & bitterness in family).

b) It is nice to be independent. But one should be flexible about this point. Dependence to some extent is manytimes inevitables and hence should not be taken as pitiability.

c) Have some activity that pleases you & benefits others.

d) Plenty of water, sprouts, fruits, vegetables, daily walk, yogasanas and socialization of some sort should prove beneficial.

THE STRESS RESULTING FROM LOSS OF LIFE

Apparently the loss of life is not a new and complex emotional stress. But increasingly complex social environment, the sudden deaths, accidental deaths, murders, deaths due to terrorism, wars etc. have become far more common than earlier days. These constitute new emotional stressors.

Death per se is extremely difficult stressor. Its grasp requires understanding the concept of SANKALPA.

This can enable you to differentiate the position of the departed individual from that of your own. This makes it relatively easier to overcome stress of this type.

CONCEPT OF OF AKARTA BHAV

Akarta bhav is the knowledge of the fact that body and mind are not the doers, they are not the causes, rather than that they are the effects of ultimate and penultimate causes.

(Akarta Bhav : Karta is the door or performer. A is prefix to indicate Absence., Bhav is one's conviction or feeling., Akarta Bhav is a conviction that one's body, mind, and intellect are not the masters deciding various events in life.)

This understanding can make us humble on the one hand and free from guilt on the other (develop healthy affect).

The concept of Akarta Bhav gives us the knowledge of our ignorance of our past, future and present and also the billions of interactions inside and outside our body.

The new stressors are so complex that this concept would almost always be required to manage them.

INFECTIOUS NATURE OF STRESS:

Stress is “infectious” in nature! The person suffering from stress tends to “infect” others! The nature of value crisis (respectability to pettiness and superficiality) associated with stress is also infectious in nature.

The implication of this, is that if you do not manage stress you would remain prone to get “infected” by more stress and also prove to “infect” others, with stress.

IS IT ESSENTIAL TO UNDERSTAND THE MECHANISM AND THE EFFECTS OF STRESS?

It is not essential but it is beneficial. Please read the mechanism of stress carefully once again. This knowledge will help you to “observe” every cell of yours. The understanding of the mechanisms helps you to develop conviction about the efficacy of the TSM course and helps you to get involved in the practical aspects, which ensures best results.

Please study the effects of stress. You can tally these effects with your own experiences, symptoms, signs and results of various investigations, so as to get an idea about the severity of the effects of stress on your life. This will further help you to resolve to complete TSM course with enthusiasm and vigor.

IMPORTANCE OF UNDERSTANDING THE DEVELOPMENT OF SOCIETY

Please study the increasing complexity of stressors and emergence of religion and its influence in terms of restricting and controlling the meanness, petty selfishness, individual aspirations on the one hand (i. e. controlling

and containing the beast within) and promoting the magnanimity (nurturing the human element) and its role as a stressor and a support system, in the course of evolution and history of civilization. This is given in chapters on dimensions of stress and support systems.

It is also important to study the fact that with increase in complexity of problems, and rapid disappearance of the influence of the old support systems, emergence of individualism, indoctrination of the petty selfishness, earning quick money through whichever means, etc., have gained respectability. This has given rise to rat race and rat race for lucrative careers has nurtured enormous corruption and a variety of malpractices.

IS EVERY THING IN RELIGION GOOD AND EVERYTHING NEW BAD?

No. It is true that the rise of individualism is not entirely devoid of any merit. The individualism has definitely helped the individuals to get freed from the shackles of coercive personal restrictions imposed by religion/ s. Secondly there had been no incentive commensurate with the efforts. This was because of some sort of guarded economy and lack of competition. This had deleterious effect on the aspirations and growth with respect to prosperity. This gave rise to almost epidemic spread of apathy, lethargy, hypocrisy, cheating, inactivity, jealousy, hatred etc.

Rise of individualism stimulated the desire to work, though for personal material gains. This indirectly helps though INADEQUATELY the material growth of some others. This is definitely a shade better than indolence, lethargy, inactivity, hatred, cheating, swindling etc. But it is not adequate to nurture the inner SELF of an individual. Hence rise of individualism has lead to starvation of the true SELF thereby depriving the roots of an individual's life tree of the sap of power, happiness, creativity and nobility.

This has been one of the most important features of stress

and its deleterious effects.

Old support systems cannot provide definite answers in changing times. But it is essential to TAKE WHATEVER IS GOOD AND REJECT THE REST from them so as to EVOLVE AND BE BENEFITED FROM NEW AND MAXIMALLY EFFECTIVE SUPPORT SYSTEMS. This is in contrast to blind following or rejection of the old traditions

HOW DOES TSM WORK?

TSM embodies, nourishment of SELF, watering the roots of the life tree, exploring and acquiring the power from the powerhouse within YOU by understanding the analogy of bulb and electricity.

There are two methods of overcoming the petty dualities. These are deliberately repeated to reinforce conviction.

The method of unconditioned acceptance of oneself and one's surroundings and love for the same helps one to overcome the influence of indoctrination of petty and superficial dualities which lead to CONDITIONED DEVELOPMENT OF SELF PRIDE AND SELF PITY.

In effect this helps you to ride the petty dualities and reach and enrich the powerhouse in you. This helps you to transcend the limitations of individualism while simultaneously getting the benefits of it.

The traditional method is that of NAMASMARAN helps to prevent the drag of future as well as past and drag of pride as well as meekness.

Namasmaran has the unique merit that it does not require conscious efforts of mind or intelligence. It keeps on working subconsciously and hence prevents strain on the mind and intelligence.

WHAT IS THE RELEVANCE OF HOMEOSTASIS IN STRESS MANAGEMENT?

It is important that you understand the concept of homeostasis and participation of all cells in it and the welfare of the organism. Remember that the organism is healthy if the cells are healthy and doing their work.

Conversely the cell is healthy if the organism is healthy.

Every individual is like a cell and has to do his/her socially beneficial work. This can ensure health of the society. Which is analogous to the whole organism. The old orders ensured this though compromising the freedom of the individuals. With rapid rise of individualism and disappearance of old order a state of cancerous chaos has developed. One should appreciate that if a body cell does not function, either due to death or due to cancerous change, then it is extremely harmful to the body. Today the society and the individuals are on the brink of destruction.

If an individual explores and acquires the powerhouse and resultant global vision, clear perception, harmonious affect and socially beneficial physical, economic, social and political conduct then he can simultaneously acquire personal and social welfare.

Like in body cells and communication can help you succeed.

But for this, you have to learn to introspect and sort out subjective feelings from objective feelings and subjective thoughts from objective thoughts. Moreover you have to ascertain the degrees or gradations of pleasure and pain you get from a particular thought, feeling and action.

HOW TO FIND OUT THE DEGREE OF PLEASURE OR SADNESS? IN OTHER WORDS, WHICH IS A RIGHT WAY OF INTROSPECTION?

You can find out the degree of pleasure or sadness from its intensity, its duration and its impact on the surrounding society.

Thus small things such as a tasty dish gives pleasure but it lasts for a short time, its intensity has its own limits and its influence on the society is minimal.

Compare this with discovery of a vaccine or a socially beneficial concept. The intensity would be tremendous, duration would be spreading over years and influence could be on millions.

This is also true for policy decisions and/or administrative achievement. I remember a collector achieving such a feat in the form of paying pension and provident fund in minimum time.

You can apply exactly opposite yardsticks to find out what makes you sad and guilty.

PRIORITIZATION

This FINDING OUT OF DEGREE OF PLEASURE OR SADNESS, helps you to decide what is more important than the other. This is called PRIORITIZATION. This helps you to do the most important things first with priority and the least important at last.

Once a thought or a feeling or an action is judged as objective and of TOP PRIORITY, then it becomes easy to ASSERT oneself rather than being imposing or getting imposed.

POSITIVE AND NEGATIVE REINFORCEMENT

Try to remember the thought, the feeling and the action that gave you happiness of maximum intensity, maximum duration and that simultaneously benefited others. Relive it. This would help you CONSOLIDATE your priorities, (POSITIVE REINFORCEMENT).

Do this exercise with respect to thoughts, feelings and actions, which gave maximum sadness lasting for maximum duration and hurting or inflicting others. This would help you to avoid with CONVICTION, what you would like to avoid on priority basis (NEGATIVE REINFORCEMENT).

WHAT IS DISTRESS CYCLE ?

The stress involves a) stressors, b) perception, cognition or appraisal of the of stressor, c) feelings or affect resulting from that appraisal, the change in the internal environment and d) the response of the individual in terms of behavior (depending on physical, psychological, intellectual and spiritual capabilities of an individual, learning, social circumstances, financial situation, religious guidance, spiritual solace, entertainment, love, family support,

medical help and such several factors)

All the effects of stressors on cognition, affect and response in turn can act as stressors and this can result into a vicious cycle called DISTRESS CYCLE.

WHAT IS WELLNESS CYCLE?

When you regularly practice positive and negative reinforcement the wellness cycle begins. Wellness cycle brings about positive and beneficial effect of a feeling, thought, and action on your health (increased intellectual capacity, happiness, healthy instincts and satisfactory physical activities) and the vicious cycle or distress cycle of negative or deleterious effects on your health starts disappearing.

HOW DOES ASSERTION HELP?

With rise of INDIVIDUALISM AND CONCEPT OF DEMOCRACY it is pertinent to evolve these concepts in a beneficial way. Democracy can be healthy and beneficial, only if there is, well developed ability TO ASSERT ONESELF AND COMMUNICATE. Thus, INTROSPECTION, PRIORITIZATION, POSITIVE AND NEGATIVE REINFORCEMENT AND WELLNESS CYCLE HELP you to PARTICIPATE IN SOCIAL TRANSFORMATION. The nature of assertion in this situation is that of addressing social problems with PROPER COGNITION, PROPER AFFECT AND PROPER CONATION.

ARE THERE SOME PROBLEMS WHICH DESERVE IMMEDIATE ATTENTION OF EVEN A COMMON MAN AND WHICH CAN HELP IN TSM?

Yes. The problems of child labor, charity, free medical care, free education, subsidy, environmental pollution, consumer protection or consumer interests, corruption, communal interests, strikes etc. all deserve immediate attention and even very small contribution from you in these matters can help the suffering people and you too..

The problem of child labour is discussed in brief on pp. 60 - 71.

Let us consider a couple of problems and you can

understand how it is important and beneficial to address social problems for one's own benefit and the benefit of the society.

CONSUMER INTEREST

Consumer interest is thought to be merely restricted to availing of financial benefit and good quality of product to the consumer.

But it has to be appreciated that consumer interest can not be restricted to mere financial gains. It has to be coupled with emotional, intellectual and spiritual gains. The PERSPECTIVE of a consumer is very important. A deficient perspective of a consumer is reflected in perceptions, thoughts, feelings and actions of a consumer.

This can be clear from an example of the fly over bridges in Mumbai. Since we use the fly over bridges we become consumers. We in Mumbai may feel privileged and very happy to have fly over bridges. But what about the plight of villages where there is no drinking water, schools, primary health care and post offices and so on? With narrow perspective it is not possible to manage complex emotional and complex intellectual stressors.

COMMUNAL INTERESTS

Similarly if we restrict ourselves to the communal interests of our own community and that also at the cost of other communities, then it is a narrow perspective and can not enable us to manage new and complex emotional and intellectual stressors effectively!

STRIKES IN PUBLIC HOSPITALS

Since the strikes affect most of us, it is essential to find out the root causes of the strikes and try to deal with them. Though it is true that strikes occur for various reasons and from time to time, those, which occur in public health institutions, have a specific cause that can be detected and treated.

The cause is hidden behind the very concepts on which these institutions work. It is essential to understand that the concept of free medical care and that of economic

dependence of these institutions on the government revenue and donations, which are at the root of the problem.

The government spends honest tax payers' and investors' money on public health projects and services. In view of the fact that every citizen has a duty towards weaker and suffering section of the society and welfare work, there is nothing objectionable in this. What is objectionable is the way that nurtures irresponsible, beggarly and parasitic mentality on the one hand and exploitation of the employees and deterioration of the medical care on the other.

The public hospitals always have shortage of funds, because they are not self sufficient and they do not have any productive/commercial projects to support them. Naturally since there are no returns on what is spent, the public hospitals are always in loss.

This has led to inadequate progress in terms of inadequate facilities, inadequate salaries, inadequate employment in terms of number of employees in almost every category, protracted duty hours, worsening working conditions, worsening of staying conditions for the employees and crowding of patients. All these factors have led to deterioration of the quality of medical care. In fact because of this a large number of lower middle class and even poor patients turn to private practitioners, consultants and hospitals.

It is high time that the public hospitals are run on no loss-no profit basis, and NOT TOTALLY FREE BASIS. This would bring adequate revenue to ensure progress in terms of adequate facilities, adequate salaries, appropriate employment which could ensure normal duty hours, improvement in working conditions, improvement in staying conditions for the employees and preventing excessive and many times (because the services are free) unnecessary crowding of patients. The patients should have to pay for the medical service they get.

One may raise the objection that this is difficult to implement in case of very poor, helpless, unsupported patients. It is very true that no sensitive and sensible individual would think of doing it as well. These patients who are in agonies, in emergencies, or helpless etc. should be made exception and a separate arrangement can be made for them.

But in most other cases the problem can be overcome by making provision for payment through “services” or soft loans. This is important because it would inculcate a sense of responsibility towards one’s own health, towards public funds, towards public services and gradually but surely eradicate the parasitic tendency.

It is essential to adopt policies, which would make the public institutions self sufficient. This can be done by various ways including buttressing them with productive / commercial projects. One can think of more innovative plans as well.

Strikes in public hospitals do not reflect lack of commitment or lack of responsibility on the part of strikers, but they are a reflection of wrong concepts and their politicized implementation in terms of free-ship in medical field, at the cost of honest tax payers and investors and in some cases donors.

Let the public health institutions be self sufficient, autonomous and let the justice prevail for all concerned.

CORRUPTION

Introduction

Corruption is widely talked about but poorly thought over and understood. Because of this, deceptive sense of pride, hypocrisy, guilt, confusion, conflict, helplessness, victimization and many such things result. In short, we are in a state of inner disharmony and discomfort or in simple words, STRESS. This STRESS is sometimes consciously experienced but many times goes unnoticed.

Understanding a concept is a very effective intellectual way of management of such type of STRESS and hence

we will try to understand the concept of CORRUPTION.

Take an example of donations. If we give donation to a school we feel we are doing right thing for our child but we also are made to feel guilty because it is, in most cases illegal. This dilemma is responsible for STRESS.

Take another example, that of registration of a flat. We register our flats or blocks with government because it is compulsory, but many times we land up paying extra and get a feeling of being cheated on the one hand and guilty of paying bribe on the other. This dilemma is responsible for STRESS.

One can take several such examples.

Concept Of Corruption

To understand the corruption, properly we must first find out, the causes which lead to our present understanding of CORRUPTION, restricted to illegal transactions of money, nepotism, favoritism, administrative irregularities etc.

The causes of this understanding are influences of the so called, advanced countries, which are deficient in the perspective of global unity and welfare.

CORRUPTION actually includes i) expansionist (Any policy and activity of a nation aimed at capturing the land of another nation/s) ii) exploitative (Any policy or activity aimed at capturing the wealth of other nation/s or people) iii) oppressive (Any policy that aims at restricting the freedom of another nation or people) and iv) discriminatory (Any policy or activity that denies equality of opportunity to people of some castes, religions, regions etc. in preference to some others) activities. v) It includes the religious persecutions, fascist massacres and harassment of craftsmen in the other countries. vi) It includes the reckless addition to pollution of environment and irresponsible consumption of power at the cost of other nations and apartheid vii) (Apartheid policy is discrimination and harassment of a group of people on the basis of race and color) policy and its implementation.

The so called, advanced countries selectively forget their

expansionist, exploitative and oppressive activities and the harm done by them to other countries. Through such selective forgetfulness and the blindfolds (of vested interests of their own prosperity), they develop tubular (narrow) and blurred vision and become self righteous and condescending. They either don't understand or deliberately neglect the fact that the aberrations (symptoms of corruption) in the social, political, cultural and economic transactions amongst the different societies, develop as a result of several factors, including invasions and exploitation to which the so called developed and advanced countries themselves were/are responsible. Ignoring or not conceding, their own role, though indirect, in these aberrations they try to impose themselves as the moral and ethical saviors, leaders and judges on the rest of the world. They therefore, begin to use technology and facilities to make surveys on various issues and start passing their judgements. They try to enforce their norms, in the form of sanctions start rating the countries in terms of quantitative and qualitative corruption!

This is tantamount to assuming that all the countries which have indulged in invasions, exploitation, oppression are morally and ethically superior, merely because they are now prosperous and do not have equal number of aberrations in socioeconomic fields!

If we appreciate the fact that economic, political, social and cultural aberrations such as illegal transactions of money, nepotism, favoritism, administrative irregularities etc., are, symptoms of corruption and invasions, exploitation, oppression of other countries and societies constitute ACTUAL CORRUPTION, then it would be easy to deal with corruption effectively and lead more enriched and profound life.

It is high time that the so called advanced countries are given to understand that they have indulged in corruption in true sense and are continuing to do so in different forms such as, arms race, nuclear proliferation, supplying the arms to terrorist countries etc. The root of corruption

lies in defective cognition (perception, understanding, interpretation etc., inaccurate affect (feelings, experience, development of superiority complex, condescending attitude etc.) and inaccurate conation (policies, plans, administrative actions etc., adopted to serve the interests of one society or country at the cost of the others.). This concept can be applied to an individual (who may be either a common man or a policy maker) as well as a country i.e. government or people of a particular country.

It is important that we understand this concept of corruption and give this understanding to the advanced countries. This is because, through such understanding alone, can they help themselves, to rectify the corruption they have indulged and have been indulging into and thereby help, the rest of the countries, to rectify the symptoms of corruption, prevalent there.

This would be far more beneficial for the world and for the advanced countries themselves than the hypocritical surveys (involving colossal wastage of money), arbitrary sanctions and coercive conditions of trade, (which thwart the progress of and demoralize the entrepreneurs, traders and common people of the developing countries).

If the advanced countries and people therein understand this concept they probably would realize that NOBODY AND NO COUNTRY IN THE WORLD, CAN CLAIM TO BE TOTALLY UNCORRUPT. They would develop due humility and volunteer to rectify the basic phenomenon of corruption. Let us now therefore try to understand the causes of the symptoms of corruption and corruption proper.

Basically, SYMPTOMS OF CORRUPTION are the ones, which make us aware of the fact there is some thing wrong viz. CORRUPTION has taken place. The SYMPTOMS OF CORRUPTION is an undesirable result or a manifestation (deleterious to individual and social wellbeing), of a variety of INTERACTIONS BETWEEN OUR MINDSETS AND VARIOUS SITUATIONS. The CORRUPTION on the other hand is undesirable aberrations responsible for

the MINDSETS and the SITUATIONS. eg. atom bombing Hiroshima has caused genetic aberrations as well as destruction of ecology, social support system and family atmosphere.

Our MINDSETS depend on:

- A) Our genetic make up
- B) Our experiences (physical, instinctual, emotional, cultural, intellectual etc.)

Various SITUATIONS depend on:

- A) Various laws, rules, conventions, traditions, economic policies, political policies, implementation of the policies etc.
- B) Our own financial status
- C) Social support systems
- D) Family atmosphere
- E) Geographical conditions social conditions.

This list can be increased but it is not essential in view of shortage of space.

You will appreciate that merely attacking and criticizing. symptoms of corruption can never solve the problem of corruption which is deeper phenomenon affecting the situations and mindsets and thereby giving rise to symptoms of corruption. If the advanced countries or those influenced by them keep on flagellating the symptoms of corruption, then it would lead to continuation and increase of the irregularities (symptoms of corruption) in every sphere of life. They will not only grow amongst the people with criminal mentality but it will also grow amongst good hearted and well meaning people as there would not remain any alternative other than that.

We (like the advanced countries) need not and should not develop sense of guilt and pride based on the presence or absence of symptoms of corruption respectively. Insteads, we must try to cure the actual corruption, which affects the mindsets and situations.

Otherwise so called honesty in job (absence of symptoms

of corruption) is exploited by, the dishonest ones, thereby rendering their honesty itself into dishonesty and so called dishonesty continues unabated, even as the person develops guilt complex because he or she is really helpless and ill effects on the others continue..

FIRST REMEDY TO CORRUPTION IS EXPLORING, EVOLVING AND NOURISHING THE GLOBAL PERSPECTIVE AND RECTIFY OUR COGNITION, AFFECT AND CONATION (MINDSETS)

The simplest way to do this is PARTICIPATE in TSM in general Course in particular. It would go a long way in evolving and improving the mindsets.

SECOND REMEDY IS EFFORTS AT IMPROVEMENT OF THE SITUATIONS.

THIS CAN BE DONE BY PARTICIPATING IN THE ACTIVITIES AIMED AT EVOLVING AND IMPROVING THE SITUATIONS, BY CONTRIBUTING CONSTRUCTIVE SUGGESTIONS FOR APPROPRIATE PERSPECTIVE, POLICIES, LAWS, RULES, REGULATIONS, IMPLEMENTATION, CONVENTIONS, TRADITIONS ETC. ACCORDING TO OUR FIELD.

This is “the most appropriate way of PARTICIPATION IN TSM. It would go a long way in improving the situations.

If we really want to eradicate or at least contain the corruption and get rid of the STRESS produced by it then these are the solutions.

Arbitrary measures such as trying to purify the bureaucracy and impose rigorous rules etc. would never prove effective in individual STRESS management as well as eradication or even reduction of symptoms of corruption and the corruption proper.

HOW IS THIS WHOLE EXERCISE CONDUCTIVE TO STRESS MANAGEMENT OF TSM ?

In the old order there were some concepts such as service to God, nation, society, guru, parents, children, neighbour, spouse etc. These all are the ways to nurture your true SELF thereby ensure growth, strength, generosity, happiness and peace of mind. Or in other words, these can be said to

develop the channels between your powerhouse and you! These activities were meant to vitalize you.

The exercises mentioned in this book are such that they do the same without imposing on you any specific and coercive rules and regulations from any religion.

In other words the discussion in this book is aimed at giving you the best of individualism as well as the old order.

HOW DOES THE CONCEPT OF “TOTAL STANCE” OR “BIRD AND WIND” WORK?

Physical stance makes your athletic activity efficient, elegant and pleasant. If your intelligence, emotions, instincts and body all are in perfect coordination and peaceful alertness (TOTAL STANCE), then your every activity becomes efficient, elegant and pleasant.

TOTAL STANCE can be made possible by simply learning to WAIT, THANKFULLY ACCEPT THE SITUATION EVEN IF IT IS APPARENTLY DISTURBING AND THEN RESPOND. This kind of acceptance is like, ADMITTING A PATIENT WITHOUT WHICH, TREATMENT IS IMPOSSIBLE.

The birds instinctively use this concept. Hence it is preferred here to call it “BIRD AND WIND” concept ! They can efficiently fly, if they get adjusted to the direction of wind. It is important to appreciate this. Because from this we can learn to accept our environment as our own and make the most of it. This is particularly important if we have tendency to grumble about our environment at home, in office or elsewhere.

You can appreciate this better if you know the importance of adapting yourself to the movements of horse while riding it and adapting to the current of water when you are either swimming in the river or playing over the tides.

There is a philosophical explanation for this. It is called SANKALPA of the previous birth. According to this theory we live and lead the life as per our SANKALPA of the previous life. In fact we choose our parents also in accordance with the SANKALPA of the previous life.

But the readers need not believe in this unless they experience it.

IS IT USEFUL TO THINK OF NEGATIVE POINTS OR NO?

If you are depressed then you may keep on thinking about failures and they may withhold you from any efforts. The result is error of inaction.

If you are unduly elated and excited then you may not think of the pros and cons at all and may act in hurry without any planning. The result is that of error of careless, unplanned and indiscriminate over action.

Therefore at heart you must be buoyant and your actions should be always preceded by careful thought about the pros and cons and planning.

PLEASE REMEMBER, IT IS ALMOST IMPOSSIBLE TO HAVE ALL THE ACTIONS COUPLED WITH CAREFUL THOUGHT, PLANNING AND VICTORIOUS ATTITUDE. But one can apply this statement to at least as many major and later as many relatively minor, actions as possible

WHAT IS THE MEANING OF LOSER-TAPES?

According to me the meaning of the term “loser-tapes” is simple and as follows. Like tape recorder, our brain also stores the memories of the past and hence these memories in brain are sometimes referred to as tapes. The memories of grief or happiness are stronger. Amongst the two, the memories of grief pain, failure, heartbreak etc., are stronger.

The unpleasant memories of failure come to surface whenever one comes across a challenge. This makes that individual diffident and opportunities are thus lost. Therefore the individual becomes loser. Hence such unpleasant memories which demoralize an individual are called loser-tapes.

It is really important to learn from the memories but it is more important not to allow them to ride on your mind and demoralize you.

HOW DOES BURDEN AND SOLACE SCHEME WORK?

Many of us need solace from time to time. But when we seek solace, unknowingly we put burden on the others. But burden is usually despised and especially so when it is imposed repeatedly. This is why, when we repeatedly burden others by narrating our problems we either get, pity, ridicule, despise or reluctant charity. As a result we usually become pitiable, shameless and meek or demoralized and disheartened.

Alternatively many of us develop a patronizing attitude and tend to offer help. This leads to indiscriminate and unnecessary loss of time, energy and money.

It is good to develop mutual respect and not become a burden (rendering oneself passive and meek) or solace (treating others as passive and meek). Be what you are.

BLIND OBEDIENCE AND BLIND DISOBEDIENCE

Blind obedience as used to be practised and is still practised in many organizations, has a limited scope and in limited organizations such as army which have a specific kind of task.

Blind disobedience also has limited scope in such fields where brain storming is essential e.g. scientific fields or in the beginning of learning to inculcate intellectual rectitude and intellectual arrogance.

But by and large, it is better to evolve the concept of enlightened obedience where, one carefully listens, asks questions, accepts provisionally, experiments, verifies and thers after working on it thoroughly, accepts or rejects a particular concept with clear understanding that in future it could be rejected or accepted respectively.

WHAT IS THE USE OF THIS WIN-LOSE, LOSE-WIN, LOSE-LOSE AND WIN-WIN SCHEME?

This scheme gives a healthy perspective of interactions amongst groups and indirectly helps us to manage stress.

Win-lose means I win you lose. This usually amounts to

exploitation.

Lose-win means I lose you win. This amounts to getting exploited.

Lose-lose means both of us lose. This means inviting trouble for both.

Win-win means both of us win. This means both of us win and get benefited. This is how the society can progress through

cooperation, harmonious interactions so as to become healthier, happier and prosperous.



Fig. 9.18: I win you lose



Fig. 9.19: I lose you win



Fig. 9.20: We both lose

WHAT IS THE IMPORTANCE OF RATIONALITY IN STRESS MANAGEMENT?

We can understand this by an example.



Fig. 9.21: We both win

Imagine swimming pool, with a facility of a nice diving board. Imagine beautiful steps to reach that diving board. A imagine that you can not swim unless you dive!

Now, swimming in the pool after diving wonderfully and enjoying it is like managing stress. The steps to reach that diving board are like rationality or intelligence.

Those of us who do not climb up the steps to the diving board obviously cannot get a chance to plunge in water and swim. Irrationality and blind belief are hurdles in the management of stress.

Similarly those who just climb the steps and reach the diving board, but do not thereafter jump from it can also not have a chance to swim. Getting imprisoned in intellectual framework or one's rationality (without realizing that it has its own limitations) is being blind to millions of possibilities which are beyond the range of one's own intelligence and is also a hurdle in stress management.

Climbing the steps, reaching the diving board and jumping from it (getting freed from the enslaving shackles of one's own paradigms and intellectual frames) help one to enjoy swimming i.e. efficiently manage the stress.

CAN WE COMPARE THE TSM TO EXERCISE?

Yes. TSM is equivalent to intellectual, emotional, instinctual, physical and hence total exercise! It tones up your total being!

By such exercise following benefits usually become apparent rapidly. Being curious, studious, clear, buoyant, affectionate,

Presence of love and care in your eyes, soothing and comforting smile on your face,

Presence of solace and encouragement in your speech,

Presence of confidence and elegance in your posture, your movements and your other gestures,

Presence of wisdom and generosity in your economic transactions,

Concern and service for the environment, Cheerfulness even at the fag end of the day etc.

Fearless and socially beneficial participation in policies, plans administration etc in one's own field.

COMMUNICATION

It is always useful to study at least one language so that you can confidently grasp, feel and express in that language. In fact this is very important for effective and satisfactory communication which is an efficient vehicle of communication.

Conscious awareness of the facts that HIGH TECH LIFE STYLE, "ONE UP MAN" SHIP, KNOWLEDGE OF DISEASES SUCH AS CANCER, DIABETES, HEART DISEASES ETC., INFORMATION MANIAALL INCREASE STRESS, is important. It is important to be aware of the fact that the stressors are going to increase in number and complexity.

At govermental level several steps can be taken to reduce different emotional & intalletual stressers? Some points have already been mentioned earlier. But some more policies can be suggested here.

- a) Simplification of tax system.
- b) Reduction in red - tapism.
- c) Increased in public transport ?
- d) Making medical curricula holistic.

- e) Changing the fuel to gas and thereby reducing vehicular pollution .
- f) Trying to make industries education and research oriented & educational institutions industrious.
- g) Reduction in all subsidies (They are one of the causes of corruption)
- h) Accountability & incentive in jobs
- i) Charges for visiting any historical monuments, gardens, zoo etc. Impose deterrent punishments on defaulters.

Many more suggestions can come from the readers themselves as they could be expert in different fields.

HOW TO MANAGE STRESS DUE TO EXTRA ORDINARY CIRCUMSTANCES

Cognition

FOR THE YOUNGSTERS WHO ARE SOCIALLY CONCERNED BUT NOT YET INVOLVED IN ACTIVITY. PREVENTION OF STRESS!

It is essential to appreciate that if you are socially concerned then it is not something abnormal but it is adorable. In our society the values of superficiality and pettiness have assumed cancerous dimensions and hence you are likely to be ridiculed for your nobility. If you have gone through this book, right from the beginning, then you must have already understood this clearly.

Second point is, do not get involved into any activity or movement unless and until, you study the pros and cons of it. Before getting involved in a particular mission, it is essential to verify its validity, accuracy and efficacy scrupulously.

This is because of two reasons.

1) It not unusual to get fascinated by so called noble goals and noble activities, which are either useless or actually counterproductive. Many times we get involved in various movements and activities and later get frustrated because of their uselessness, and or counterproductive nature.

Please remember, Many such activities can ruin an individual, his/ her family besides causing damage to the society.

2) There are many irresponsible, erratic, maniacal and even perverted and criminal elements in society. Unfortunately many of them have, good looks, good memory, good linguistic skills, good acting skills, good oratory or any such qualities which attract young individuals. Moreover these people are always on look out for young, enthusiastic, honest, committed, unselfish individuals to serve their ideas, plans, whims, fancies and even vested interests and perversions.

FOR THOSE WHO ARE ALREADY UNDER THIS KIND OF STRESS TO A VARIABLE EXTENT:

Please remember that there are many like you. You are not alone. Please also note that ideologies, organizations, convictions and so called, principles should not become stifling. They should not become shackles, in which case they can give rise to fanaticism, extremism, cynicism or frustration or degeneration.

With such understanding, various religious and philosophical books can be quite useful. Study of other ideologies including atheism is also useful. But you may need personal guidance for their appropriate interpretation and application in life.

This is because, as the times change, rulers change, political systems change, social interactions change, social relationships change, individual lives and the commodities change, the languages change, even the geographical landscapes change, agriculture and biological environment change. In fact hardly any thing remains unchanged. This makes extraction of the essence of these books and its application to the present circumstances, very difficult.

Affect

Younger individuals who are not under this kind of stress Be patient. Remain ready to listen. Internalize the concept

of enlightened obedience. Remain alert and confident. All the life is ahead of you.

FOR THOSE WHO ARE ALREADY UNDER THIS KIND OF STRESS TO A VARIABLE EXTENT:

After having read this book you must have developed right approach to life.

However one more and special attribute you require to have, is the intellectual and emotional flexibility. You require enormous intellectual and emotional vigor to overcome the stifling effect of ideologies. It is not unusual for sensitive individuals like you to remain stuck to a particular ideology or an organization and get frustrated because you have already come a long way from where you may feel the return is impossible. It is never too late. Do not get trapped, by frustration or feeling of deception. In that case, you would be predisposed to get hooked by, what you despised all along your life. Remember that your life is very valuable not alone for yourself, but for millions, even if it has not given you the comforts or fulfillment which even a common man gets. Your life is like expedition of Himalaya. Whether you have so far succeeded or failed, the importance of your efforts can never be matched by those who live for their petty gains.

Conation

YOUNGER INDIVIDUALS:

You tend to neglect physical aspects of life. Take care of your body. Give your body the comforts and pleasures it deserves. Do not neglect physical aspects of life. Resist fascination and impulsive response. Participate in TSM.

FOR THOSE WHO ARE ALREADY UNDER THIS KIND OF STRESS TO A VARIABLE EXTENT

Use this book to decide and redefine your priorities and start anew. Participate in TSM.

Government - authorities and those who govern the economy can develop appropriate perspective in the society and this way participate in the social transformation through TSM.

10. CONCLUSION

Total stress management TSM is a way to total well being. This involves efforts to acquire physical, instinctual, emotional & intellectual well being. In addition, total well being pertains not merely to an individual (analogous to a cell) but to whole mankind in fact whole universe (analogous to an organism).

Total stress management involves improvement in cognition (Perception) affect (feelings) and conation (actions). Thus it embodies broadening of perspective, thinking, feelings and actions.

It embodies learning to get involved intellectually, emotionally and physically in a passionate manner in a process of social transformation. Without this it cannot be effective. Health or stress management in one individual is a shortcut of temporary benefit but with damaging effect on everyone's health in the long run.

No specific prescriptions are given here, as in the process of stress management every individual acquires power and ability to read a situation correctly with very well balanced mind, victorious spirit and respond at local, national and international levels according to one's constitution & field.

While total stress (TSM) management in a way of life TSM course is merely an introduction to total stress management. It is effective but only as a beginning, not as an end.

Lastly, TSM envisages humanization of all the fields in life and that is possible only through the efforts of thousands of well meaning expert decision makers and policy makers from different fields.

In ongoing stress management the readers may find it useful to read some of my books, a list of which is given

at the end.

These books were written by me in different stages of development and in response to different situations. The first book in the list tries to highlight the points of views of a practising doctor and thereby develop understanding between different people in the medical field.

The second book Hkksojk (Bhovara) narrates my experiences and ideas about rural medical practice. This book usually helps a reader to appreciate that most of us neglect or ignore social problems and magnify our own. In the process we get overstressed due to phatiton Stressors born out of our imaginations.

The third book is about American people. It describes the human interactions in America and what can be learned from America. Also, it explains the vanity and vaccume in personal and family life.

The fourth book gives you general idea about disease how to deal with them. This usually reduces the fear about various diseases.

The fifth book lglzus= (Sahasranetra) tries to explain the hymn fo”.klgluke (One thousand names of Vishnu) and indicate its value in developing / evolving proper perspective and handling day-to-day social and personal problems.

The sixth book lE;d oS|d explains how the arbitrary division of “healing” into different pathies is counter productive and helps the reader discover the hidden unity between apparently different pathies.

The seventh book gives a new and healthier perspective about sex and sex related transactions in family, between husband - wife, between friends, media, trade etc.

This can help the readers develop healthier attitude about sex and bring about improvement in the variety of relationships and transactions involving sex.

The ninth book gives a general knowledge about many medical things you would like to know. This builds up confidence.

The 10th, 11th, 18th & 19th books describe how the traditional practice of chanting or remembering the name of God (UkeLej.k - Namasmaran) can bring about prosperity and propensity in personal as well as social life.

The 12th and 13th books are novels. One can identify with the characters also are trying find to a variety of problems. This can be a good exercise in developing problem solving skills.

The 14th, 15th, 16th, 17th, 28th, 29th and 30th handle various academic, medical & day-to-day personal and social problems. They could give you a clearer vision and thereby overcome a variety of stressors.

The books on Geeta discuss many questions (which keep nagging many of us. Since they are not day-to-day problems, they remain unsolved and keep us restless) and help the reader to overcome stress.

The reason these books are suggested for further (even as I know that it can be interpreted as advertising) is because they would clarify the process of emergence or development of concepts of stress management as are enumerated in this book.

Someone may ask about the merit of other books.

I have found books of Karl Marx, Swami Vivekananda, J. Krishnamurthy, Bahai faith, Paramahansa Yogananda, Vinoba Bhave, Gondawalekar Maharaj, Saint Jnaneshvar, Samartha Ramdas, Osho (Rajneesh) and many others including Arun Shourie, Dhananjay Keer and many others have influenced me. Various books on Hathayoga, devotion, ethics including those of BKS Iyengar, Swami Rama were also useful.

But I have not been a devotee of them, though I respect them immensely. Hence I would leave it to the readers to as to whether they read them or not.

Once again thank you & all the best !

A LIST OF BOOKS USEFUL IN STRESS MANAGEMENT

BOOKS IN MARATHI

- 1) वैद्यकीय व्यवसाय-व्यवहार आणि ध्येय (VAIDYAKIYA VYAVASAYA VYAVAHAR ANI DHYEYA)
- 2) भोवरा (BHOVARA)
- 3) अमेरिकनांच्या अंतरंगात (AMERIKANANCHYA ANTARANGAT)
- 4) उन्हाळी पावसाळी आजार (UNHALI, PAVASALI, HIVALI AJAR)
- 5) सहस्रनेत्र (SAHASRANETRA)
- 6) सम्यक वैद्यक (SAMYAK VAIDYAK)
- 7) कामजीवन-ज्ञान आणि समाधान (KAMAJEEVAN: DNYAN ANI SAMADHAN)
- 8) थकवा घालवा-स्फूर्ती मिळवा (THAKAVA GHALWA SPHURTI MILWA)
- 9) म्हणजे काय होते? (MHANJE KAY HOTE?)
- 10) नामस्मरण (EXPOSITION OF THE ROLE OF THE TRADITIONAL PRACTICE OF NAMASMARAN IN TOTAL STRESS MANAGEMENT)
- 11) संपूर्ण आरोग्यासाठी नामस्मरण (SAMPOORNA AROGYSATHI NAMASMARAN)
- 12) शांभवी (SHAMBHAVI)
- 13) सूर्यशोध (SURYASHODHA)
- 14) तणावमुक्तीसाठी उपयुक्त लेख (A COMPILATION OF ARTICLES AND SHORT STORIES, USEFUL IN STRESS MANAGEMENT).
- 15) आरोग्याचा आरसा (AROGYACHA ARASA)
- 16) कविता (COMPILATION OF POEMS)
- 17) सम्यक आरोग्यावरील लेख (COMPILATION OF ARTICLES ON HOLISTIC HEALTH)

- 18) आरोग्यदीप (A FULLY ILLUSTRATED BOOK THAT EMBODIES EXPLANATIONS OF COMMON QUESTIONS / DOUBTS PERTAINING MEDICAL FIELD)
- 19) चैतन्यसाधना (WAYS AND MEANS FOR ACQUIRING HOLISTIC HEALTH)
- 20) संपूर्ण तणावमुक्ती (SAMPOORNA TANAVMUKTI)
- 21) हितगुज (HITGUJ)

BOOKS IN HINDI

- 22) संपूर्ण आरोग्यका राजमार्ग (SAMPOORNA AROGYAKA RAJAMARGA)

BOOKS IN ENGLISH

- 23) NAMASMARAN
- 24) A COMPILATION OF ARTICLES ON HOLISTIC MEDICINE
- 25) HOLISTIC HEALTH
- 26) A COMPILATION OF ARTICLES ON SOCIAL ISSUES CAUSING STRESS
- 27) PRACTICAL TOTAL STRESS MANAGEMENT ("EASY TO FOLLOW" STEPS FOR TOTAL STRESS MANAGEMENT)
- 28) BE SUCCESSFUL IN EXAMINATIONS (A GUIDE FOR STUDENTS, PARENTS, TEACHERS & POLICY MAKERS)
- 29) NAVGRAHA STOTRA (TRANSLATION & EXPLANATION OF A WORLD FAMOUS HYMN)
- 30) CONCEPTUAL STRESS : UNDERSTANDING & MANAGEMENT HEALING CLARIFICATION OF SEVERAL NAGGING & DISTRESSING ISSUES
- 31) SMILING SUN: THE EXCITING AND REJUVENATING STORY BEHIND THE DEVELOPMENT OF TOTAL

STRESS MANAGEMENT (TSM)

NEW PUBLICATIONS

32) नवग्रह स्तोत्रम्

33) यशोदय

34) आरोग्यस्मरण

AUTHOR'S ADDRESS:

DR. SHRINIWAS J. KASHALIKAR

M.B.B.S., M.D., F.I.C.G., F.F.F.B.M.S.(USA)

101, A24, Happy Valley, TikunjiniWadi Road,
Thane (w) Pin-400 607.

PHONES: (R) 2589 8934 Mob: 9821406905

E-mail: shriniwasjk@rediffmail.com

Website: www.superliving.net

